

(FILE 'HOME' ENTERED AT 18:52:24 ON 21 MAR 2002)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH,  
USPATFULL, JAPIO' ENTERED AT 18:52:45 ON 21 MAR 2002

L1	245589 S SALMONELLA
L2	1054194 S MUTANTS OR MUTATIONS OR DELETIONS
L3	474 S SALMONELLA VACCINES
L4	30393 S FLAGELLA OR FLAGELLIN
L5	18262 S SALMONELLA TYPHI
L6	3872 S SALMONELLA PARATYPHI
L7	24886 S L1 AND L2
L8	97 S L7 AND L3
L9	4039 S L2 AND L4
L10	6 S L8 AND L9

=>

> s Salmonella and mutat?  
L1 28648 SALMONELLA AND MUTAT?

=> s l1 and flage?  
L2 1097 L1 AND FLAGE?

=> s l2 and vaccine?  
L3 110 L2 AND VACCINE?

=> d l3 ibib 1-110

L3 ANSWER 1 OF 110 BIOSIS COPYRIGHT 2001 BIOSIS

ACCESSION NUMBER: 1997:105754 BIOSIS

DOCUMENT NUMBER: PREV199799404957

TITLE: Role of SefA subunit protein of SEF14 fimbriae in the pathogenesis of **Salmonella** enterica serovar enteritidis.

AUTHOR(S): Ogunniyi, Abiodun D.; Kotlarski, Ieva; Morona, Renato; Manning, Paul A. (1)

CORPORATE SOURCE: (1) Microbial Pathogenesis Unit, Dep. Microbiol. Immunol., Univ. Adelaide, Adelaide, SA 5005 Australia

SOURCE: Infection and Immunity, (1997) Vol. 65, No. 2, pp. 708-717. ISSN: 0019-9567.

DOCUMENT TYPE: Article

LANGUAGE: English

L3 ANSWER 2 OF 110 BIOSIS COPYRIGHT 2001 BIOSIS

ACCESSION NUMBER: 1994:226104 BIOSIS

DOCUMENT NUMBER: PREV199497239104

TITLE: Hypervariable region IV of **Salmonella** gene fliC-d encodes a dominant surface epitope and a stabilizing factor for functional **flagella**.

AUTHOR(S): He, Xiao-Song; Rivkina, Marianne; Stocker, Bruce A. D.; Robinson, William S. (1)

CORPORATE SOURCE: (1) Dep. Med., Stanford Univ. Sch. Med., Stanford, CA 94305 USA

SOURCE: Journal of Bacteriology, (1994) Vol. 176, No. 8, pp. 2406-2414.

ISSN: 0021-9193.

DOCUMENT TYPE: Article

LANGUAGE: English

L3 ANSWER 3 OF 110 BIOSIS COPYRIGHT 2001 BIOSIS

ACCESSION NUMBER: 1994:77947 BIOSIS

DOCUMENT NUMBER: PREV199497090947

TITLE: Genetically stable temperature-sensitive mutants of **Salmonella typhi** induce protection in mice.

AUTHOR(S): Hooke, Anne Morris (1); Cerquetti, M. Cristina; Zeligs, Barbara J.; Wang, Zhen; Hoberg, Kathryn; Bellanti, Joseph A.

CORPORATE SOURCE: (1) Dep. Microbiol., Miami Univ., Oxford, OH 45056 USA

SOURCE: Vaccine, (1993) Vol. 11, No. 14, pp. 1386-1389.

ISSN: 0264-410X.

DOCUMENT TYPE: Article

LANGUAGE: English

L3 ANSWER 4 OF 110 CABA COPYRIGHT 2001 CABI

ACCESSION NUMBER: 1998:158477 CABA

DOCUMENT NUMBER: 982214803

TITLE: Establishment of a high-level expression system for the **Salmonella** gene fliCi

AUTHOR: Jiao XinAn; Zhang GuoQiang; Wen QiYi; Gao Song; Zhang RuKuan; Liu XiuFan; Jiao, X. A.; Zhang, G. Q.; Wen, Q. Y.; Gao, S.; Zhang, R. K.; Liu, X. F.

CORPORATE SOURCE: Faculty of Veterinary Medicine, Agricultural College of Yangzhou University, Yangzhou, Jiangsu 225009, China.

SOURCE: Chinese Journal of Veterinary Science, (1998) Vol. 18, No. 3, pp. 241-243. 9 ref.

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

SUMMARY LANGUAGE: English

  

L3 ANSWER 5 OF 110 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1998:548895 CAPLUS

DOCUMENT NUMBER: 129:240533

TITLE: Establishment of the high-level expression system for **Salmonella** gene *fliCi*

AUTHOR(S): Jiao, Xin'an; Zhang, Guoqiang; Wen, Qiyi; Gao, Song; Zhang, Rukuan; Liu, Xiufan

CORPORATE SOURCE: Fac. Vet. Med., Agri. Coll. Yangzhou Univ., Yangzhou, 225009, Peop. Rep. China

SOURCE: Zhongguo Shouyi Xuebao (1998), 18(3), 241-243

CODEN: ZSXUF5; ISSN: 1005-4545

PUBLISHER: Zhongguo Shouyi Xuebao Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

  

L3 ANSWER 6 OF 110 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1997:98002 CAPLUS

DOCUMENT NUMBER: 126:183570

TITLE: Role of SefA subunit protein of SEF14 fimbriae in the pathogenesis of **Salmonella** enterica serovar enteritidis

AUTHOR(S): Ogunniyi, Abiodun D.; Kotlarski, Ieva; Morona, Renato; Manning, Paul A.

CORPORATE SOURCE: Microbiol. Pathogenesis Unit, Dep. Microbiol. Immunol., Univ. Adelaide, Adelaide, 5005, Australia

SOURCE: Infect. Immun. (1997), 65(2), 708-717

CODEN: INFIBR; ISSN: 0019-9567

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

  

L3 ANSWER 7 OF 110 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1994:406798 CAPLUS

DOCUMENT NUMBER: 121:6798

TITLE: Hypervariable region IV of **Salmonella** gene *fliC*d encodes a dominant surface epitope and a stabilizing factor for functional **flagella**

AUTHOR(S): He, Xiao Song; Rivkina, Marianne; Stockler, Bruce A. D.; Robinson, William S.

CORPORATE SOURCE: Sch. Med., Stanford Univ., Stanford, CA, 94305, USA

SOURCE: J. Bacteriol. (1994), 176(8), 2406-14

CODEN: JOBAAY; ISSN: 0021-9193

DOCUMENT TYPE: Journal

LANGUAGE: English

  

L3 ANSWER 8 OF 110 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1993:252767 CAPLUS

DOCUMENT NUMBER: 118:252767

TITLE: Live attenuated **salmonellae**: Oral **vaccines** for salmonellosis and combined **vaccines** carrying heterologous antigens

AUTHOR(S): Hormaeche, Carlos E.; Dougan, Gordon; Chatfield, Steve N.

CORPORATE SOURCE: Div. Microbiol. Parasitol., Dep. Pathol., Cambridge, CB2 1QP, UK

SOURCE: FEMS Symp. (1992), 63(Release of Genetically Modified Microorganisms--REGEM 2), 71-83  
DOCUMENT TYPE: CODEN: FEMSDW; ISSN: 0163-9188  
LANGUAGE: Journal; General Review  
English

L3 ANSWER 9 OF 110 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1992:241920 CAPLUS  
DOCUMENT NUMBER: 116:241920  
TITLE: Acid-tolerant *Salmonella* typhi, double aro mutants thereof, and use as an oral vaccine for typhoid fever  
INVENTOR(S): Hone, David M.; Levine, Myron M.  
PATENT ASSIGNEE(S): University of Maryland, Baltimore, USA  
SOURCE: PCT Int. Appl., 104 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9118092	A1	19911128	WO 1991-US3447	19910522
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
PRIORITY APPLN. INFO.:			US 1990-527467	19900523

L3 ANSWER 10 OF 110 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.  
ACCESSION NUMBER: 97036545 EMBASE  
DOCUMENT NUMBER: 1997036545  
TITLE: Role of SefA subunit protein of SEF14 fimbriae in the pathogenesis of *Salmonella* enterica serovar enteritidis.  
AUTHOR: Ogunniyi A.D.; Kotlarski I.; Morona R.; Manning P.A.  
CORPORATE SOURCE: P.A. Manning, Microbial Pathogenesis Unit, Dept. of Microbiology and Immunology, University of Adelaide, Adelaide, SA 5005, Australia  
SOURCE: Infection and Immunity, (1997) 65/2 (708-717).  
Refs: 67  
ISSN: 0019-9567 CODEN: INFIBR  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 004 Microbiology  
005 General Pathology and Pathological Anatomy  
048 Gastroenterology  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L3 ANSWER 11 OF 110 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.  
ACCESSION NUMBER: 94124106 EMBASE  
DOCUMENT NUMBER: 1994124106  
TITLE: Hypervariable region IV of *Salmonella* gene fliC(d) encodes a dominant surface epitope and a stabilizing factor for functional flagella.  
AUTHOR: He X.-S.; Rivkina M.; Stocker B.A.D.; Robinson W.S.  
CORPORATE SOURCE: Department of Medicine, Stanford Univ. School of Medicine, Stanford, CA 94305, United States  
SOURCE: Journal of Bacteriology, (1994) 176/8 (2406-2414).  
ISSN: 0021-9193 CODEN: JOBAAY  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 004 Microbiology  
LANGUAGE: English

SUMMARY LANGUAGE: English

L3 ANSWER 12 OF 110 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.  
ACCESSION NUMBER: 93357656 EMBASE  
DOCUMENT NUMBER: 1993357656  
TITLE: Genetically stable temperature-sensitive mutants of **Salmonella** typhi induce protection in mice.  
AUTHOR: Morris Hooke A.; Cerquetti M.C.; Zeligs B.J.; Wang Z.; Hoberg K.; Bellanti J.A.  
CORPORATE SOURCE: Department of Microbiology, Miami University, Oxford, OH 40506, United States  
SOURCE: Vaccine, (1993) 11/14 (1386-1389).  
ISSN: 0264-410X CODEN: VACCDE  
COUNTRY: United Kingdom  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 004 Microbiology  
017 Public Health, Social Medicine and Epidemiology  
026 Immunology, Serology and Transplantation  
037 Drug Literature Index  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L3 ANSWER 13 OF 110 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.  
ACCESSION NUMBER: 91278636 EMBASE  
DOCUMENT NUMBER: 1991278636  
TITLE: Live attenuated **salmonella** vaccines and their potential as oral combined vaccines carrying heterologous antigens.  
AUTHOR: Hormaeche C.E.  
CORPORATE SOURCE: Div. Microbiology/Parasitology, Department of Pathology, Tennis Court Road, Cambridge CB2 1LP, United Kingdom  
SOURCE: Journal of Immunological Methods, (1991) 142/1 (113-120).  
ISSN: 0022-1759 CODEN: JIMMBG  
COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 004 Microbiology  
026 Immunology, Serology and Transplantation  
037 Drug Literature Index  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L3 ANSWER 14 OF 110 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.  
ACCESSION NUMBER: 91027409 EMBASE  
DOCUMENT NUMBER: 1991027409  
TITLE: Aromatic-dependent **Salmonella** as live vaccine presenters of foreign epitopes as inserts in flagellin.  
AUTHOR: Stocker B.A.D.  
CORPORATE SOURCE: Department of Microbiology and Immunology, Stanford University School of Medicine, Stanford, CA 94305-5402, United States  
SOURCE: Research in Microbiology, (1990) 141/7-8 (787-796).  
ISSN: 0923-2508 CODEN: RMCREW  
COUNTRY: France  
DOCUMENT TYPE: Journal; Conference Article  
FILE SEGMENT: 004 Microbiology  
026 Immunology, Serology and Transplantation  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L3 ANSWER 15 OF 110 LIFESCI COPYRIGHT 2001 CSA  
ACCESSION NUMBER: 97:47013 LIFESCI  
TITLE: Role of SefA subunit protein of SEF14 fimbriae in the pathogenesis of **Salmonella** enterica serovar

enteritidis  
AUTHOR: Ogunniyi, A.D.; Kotlarski, I.; Morona, R.; Manning, P.A.\*  
CORPORATE SOURCE: Microbial Pathogenesis Unit, Dep. Microbiol. and Immun.,  
Univ. Adelaide, Adelaide, S.A. 5005, Australia  
SOURCE: INFECT. IMMUN., (1997) vol. 65, no. 2, pp. 708-717.  
ISSN: 0019-9567.  
DOCUMENT TYPE: Journal  
FILE SEGMENT: J  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L3 ANSWER 16 OF 110 LIFESCI COPYRIGHT 2001 CSA  
ACCESSION NUMBER: 97:46960 LIFESCI  
TITLE: Safety of live oral **Salmonella typhi**  
**vaccine** strains with deletions in htrA and aroC  
aroD and immune response in humans  
AUTHOR: Tacket, C.O.; Sztein, M.B.; Losonsky, G.A.; Wasserman,  
S.S.; Nataro, J.P.; Edelman, R.; Pickard, D.; Dougan, G.;  
Chatfield, S.N.; Levine, M.M.  
CORPORATE SOURCE: Cent. for Vaccine Dev., 685 West Baltimore St., Baltimore,  
MD, USA  
SOURCE: INFECT. IMMUN., (1997) vol. 65, no. 2, pp. 452-456.  
ISSN: 0019-9567.  
DOCUMENT TYPE: Journal  
FILE SEGMENT: J; W3  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L3 ANSWER 17 OF 110 LIFESCI COPYRIGHT 2001 CSA  
ACCESSION NUMBER: 94:95291 LIFESCI  
TITLE: Genetically stable temperature-sensitive mutants of  
**Salmonella typhi** induce protection in mice  
AUTHOR: Hooke, A.M.; Cerquetti, M.C.; Zeligs, B.J.; Wang, Zhen;  
Hoberg, K.; Bellanti, J.A.  
CORPORATE SOURCE: Dep. Microbiol., Miami Univ., Oxford, OH 45056, USA  
SOURCE: VACCINE, (1993) vol. 11, no. 14, pp. 1386-1389.  
ISSN: 0264-410X.  
DOCUMENT TYPE: Journal  
FILE SEGMENT: J; F; W3  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L3 ANSWER 18 OF 110 LIFESCI COPYRIGHT 2001 CSA  
ACCESSION NUMBER: 94:75569 LIFESCI  
TITLE: Hypervariable region IV of **salmonella** gene fliC  
super(d) encodes a dominant surface epitope and a  
stabilizing factor for functional **flagella**  
AUTHOR: He, X.-S.; Rivkina, M.; Stocker, B.A.D.; Robinson, W.S.\*  
CORPORATE SOURCE: Dep. Med., Stanford Univ. Sch. Med., Stanford, CA 94305,  
USA  
SOURCE: J. BACTERIOL., (1994) vol. 176, no. 8, pp. 2406-2414.  
ISSN: 0021-9193.  
DOCUMENT TYPE: Journal  
FILE SEGMENT: J  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L3 ANSWER 19 OF 110 LIFESCI COPYRIGHT 2001 CSA  
ACCESSION NUMBER: 94:28626 LIFESCI  
TITLE: Live attenuated **Salmonella vaccines** and  
their potential as oral combined **vaccines**  
carrying heterologous antigens  
AUTHOR: Hormaeche, C.E.  
CORPORATE SOURCE: Div. Microbiol. and Parasitol., Dep. Pathol., Tennis Court

SOURCE: Rd., Cambridge CB2 1LP, UK  
J. IMMUNOL. METHODS, (1991) vol. 142, no. 1, pp. 113-120.  
ISSN: 0022-1759.  
DOCUMENT TYPE: Journal  
FILE SEGMENT: F; J  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L3 ANSWER 20 OF 110 MEDLINE  
ACCESSION NUMBER: 1999307226 MEDLINE  
DOCUMENT NUMBER: 99307226 PubMed ID: 10377147  
TITLE: **Salmonella** typhi flagella are potent  
inducers of proinflammatory cytokine secretion by human  
monocytes.  
AUTHOR: Wyant T L; Tanner M K; Sztein M B  
CORPORATE SOURCE: Center for Vaccine Development, Departments of Pediatrics  
and Medicine, University of Maryland, Baltimore, Maryland  
21201, USA.  
CONTRACT NUMBER: RO1 AI36525 (NIAID)  
SOURCE: INFECTION AND IMMUNITY, (1999 Jul) 67 (7) 3619-24.  
Journal code: GO7; 0246127. ISSN: 0019-9567.  
PUB. COUNTRY: United States  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199907  
ENTRY DATE: Entered STN: 19990730  
Last Updated on STN: 19990730  
Entered Medline: 19990722

L3 ANSWER 21 OF 110 MEDLINE  
ACCESSION NUMBER: 97162347 MEDLINE  
DOCUMENT NUMBER: 97162347 PubMed ID: 9009334  
TITLE: Role of SefA subunit protein of SEF14 fimbriae in the  
pathogenesis of **Salmonella** enterica serovar  
Enteritidis.  
AUTHOR: Ogunniyi A D; Kotlarski I; Morona R; Manning P A  
CORPORATE SOURCE: Department of Microbiology and Immunology, The University  
of Adelaide, South Australia.  
SOURCE: INFECTION AND IMMUNITY, (1997 Feb) 65 (2) 708-17.  
Journal code: GO7; 0246127. ISSN: 0019-9567.  
PUB. COUNTRY: United States  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-X98516  
ENTRY MONTH: 199702  
ENTRY DATE: Entered STN: 19970306  
Last Updated on STN: 19970306  
Entered Medline: 19970221

L3 ANSWER 22 OF 110 MEDLINE  
ACCESSION NUMBER: 94209244 MEDLINE  
DOCUMENT NUMBER: 94209244 PubMed ID: 7512552  
TITLE: Hypervariable region IV of **Salmonella** gene fliC<sub>d</sub>  
encodes a dominant surface epitope and a stabilizing factor  
for functional flagella.  
AUTHOR: He X S; Rivkina M; Stocker B A; Robinson W S  
CORPORATE SOURCE: Department of Medicine, Stanford University School of  
Medicine, California 94305.  
CONTRACT NUMBER: AI-13526 (NIAID)  
DK-38707 (NIDDK)  
SOURCE: JOURNAL OF BACTERIOLOGY, (1994 Apr) 176 (8) 2406-14.  
Journal code: HH3; 2985120R. ISSN: 0021-9193.

PUB. COUNTRY: United States  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199405  
ENTRY DATE: Entered STN: 19940526  
Last Updated on STN: 19960129  
Entered Medline: 19940513

L3 ANSWER 23 OF 110 MEDLINE

ACCESSION NUMBER: 94144247 MEDLINE  
DOCUMENT NUMBER: 94144247 PubMed ID: 8310758  
TITLE: Genetically stable temperature-sensitive mutants of  
**Salmonella typhi** induce protection in mice.  
AUTHOR: Hooke A M; Cerquetti M C; Zeligs B J; Wang Z; Hoberg K;  
Bellanti J A  
CORPORATE SOURCE: International Center for Interdisciplinary Studies of  
Immunology, Georgetown University School of Medicine,  
Washington, DC 20007.  
SOURCE: VACCINE, (1993 Nov) 11 (14) 1386-9.  
Journal code: X60; 8406899. ISSN: 0264-410X.  
PUB. COUNTRY: ENGLAND: United Kingdom  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199403  
ENTRY DATE: Entered STN: 19940330  
Last Updated on STN: 19940330  
Entered Medline: 19940311

L3 ANSWER 24 OF 110 MEDLINE

ACCESSION NUMBER: 92013164 MEDLINE  
DOCUMENT NUMBER: 92013164 PubMed ID: 1919015  
TITLE: Live attenuated **Salmonella vaccines** and  
their potential as oral combined **vaccines**  
carrying heterologous antigens.  
AUTHOR: Hormaeche C E  
CORPORATE SOURCE: Department of Pathology, Cambridge, U.K.  
SOURCE: JOURNAL OF IMMUNOLOGICAL METHODS, (1991 Aug 28) 142 (1)  
113-20. Ref: 92  
Journal code: IFE; 1305440. ISSN: 0022-1759.  
PUB. COUNTRY: Netherlands  
Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, ACADEMIC)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199111  
ENTRY DATE: Entered STN: 19920124  
Last Updated on STN: 19920124  
Entered Medline: 19911112

L3 ANSWER 25 OF 110 MEDLINE

ACCESSION NUMBER: 91326956 MEDLINE  
DOCUMENT NUMBER: 91326956 PubMed ID: 1714093  
TITLE: Aromatic-dependent **Salmonella** as live  
**vaccine** presenters of foreign epitopes as inserts  
in **flagellin**.  
AUTHOR: Stocker B A  
CORPORATE SOURCE: Department of Microbiology and Immunology, Stanford  
University School of Medicine, CA 94305-5402.  
CONTRACT NUMBER: AI-18872 (NIAID)  
AI-27722 (NIAID)  
SOURCE: RESEARCH IN MICROBIOLOGY, (1990 Sep-Oct) 141 (7-8) 787-96.



PUB. COUNTRY: Journal code: R6F; 8907468. ISSN: 0923-2508.  
France  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199109  
ENTRY DATE: Entered STN: 19910929  
Last Updated on STN: 19960129  
Entered Medline: 19910909

L3 ANSWER 26 OF 110 MEDLINE

ACCESSION NUMBER: 76274022 MEDLINE  
DOCUMENT NUMBER: 76274022 PubMed ID: 60853  
TITLE: [Live enteric typhoid **vaccine** consisting of a  
Vi-negative double-dependent mutant of S. typhi and a  
Vi-positive strain of Citrobacter].  
Eksperimental'nye issledovaniia zhivoi enteral'noi vaktsiny  
protiv briushnogo tifa, sostoiashchei iz Vi-negativnogo  
dvuzavisimogo mutanta S. typhi i Vi-pozitivnogo shtamma  
Citrobacter.  
AUTHOR: Pershin B B; Shuster B Iu; Maganet L S; Tolcheev Iu D  
SOURCE: ZHURNAL MIKROBIOLOGII, EPIDEMIOLOGII I IMMUNOBIOLOGII,  
(1976 Jan) (1) 35-40.  
Journal code: Y90; 0415217. ISSN: 0372-9311.  
PUB. COUNTRY: USSR  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: Russian  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 197611  
ENTRY DATE: Entered STN: 19900313  
Last Updated on STN: 19970203  
Entered Medline: 19761101

L3 ANSWER 27 OF 110 SCISEARCH COPYRIGHT 2001 ISI (R)

ACCESSION NUMBER: 2001:325290 SCISEARCH  
THE GENUINE ARTICLE: 422EF  
TITLE: Antibody response against Escherichia coli heat-stable  
enterotoxin expressed as fusions to **flagellin**  
AUTHOR: Pereira C M (Reprint); Guth B E C; Sbrogio-Almeida M E;  
Castilho B A  
CORPORATE SOURCE: Univ Fed Sao Paulo, Escola Paulista Med, Dept Microbiol  
Imunol & Parasitol, Rua Botucatu 862, BR-04023062 Sao  
Paulo, Brazil (Reprint); Univ Fed Sao Paulo, Escola  
Paulista Med, Dept Microbiol Imunol & Parasitol,  
BR-04023062 Sao Paulo, Brazil; Inst Butantan, Div  
Desenvolvimento Tecnol & Prod, BR-05503900 Sao Paulo,  
Brazil  
COUNTRY OF AUTHOR: Brazil  
SOURCE: MICROBIOLOGY-UK, (APR 2001) Vol. 147, Part 4, pp. 861-867.  
Publisher: SOC GENERAL MICROBIOLOGY, MARLBOROUGH HOUSE,  
BASINGSTOKE RD, SPENCERS WOODS, READING RG7 1AE, BERKS,  
ENGLAND.  
ISSN: 1350-0872.  
DOCUMENT TYPE: Article; Journal  
LANGUAGE: English  
REFERENCE COUNT: 38  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L3 ANSWER 28 OF 110 SCISEARCH COPYRIGHT 2001 ISI (R)

ACCESSION NUMBER: 1998:417067 SCISEARCH  
THE GENUINE ARTICLE: 2P880  
TITLE: Distinct roles of an alternative sigma factor during both  
free-swimming and colonizing phases of the Vibrio cholerae  
pathogenic cycle

AUTHOR: Klose K E; Mekalanos J J (Reprint)  
 CORPORATE SOURCE: HARVARD UNIV, SCH MED, DEPT MICROBIOL & MOL GENET, 200 LONGWOOD AVE, BOSTON, MA 02115 (Reprint); HARVARD UNIV, SCH MED, DEPT MICROBIOL & MOL GENET, BOSTON, MA 02115; HARVARD UNIV, SCH MED, SHIPLEY INST MED, BOSTON, MA 02115  
 COUNTRY OF AUTHOR: USA  
 SOURCE: MOLECULAR MICROBIOLOGY, (MAY 1998) Vol. 28, No. 3, pp. 501-520.  
 Publisher: BLACKWELL SCIENCE LTD, P O BOX 88, OSNEY MEAD, OXFORD OX2 ONE, OXON, ENGLAND.  
 ISSN: 0950-382X.  
 DOCUMENT TYPE: Article; Journal  
 FILE SEGMENT: LIFE  
 LANGUAGE: English  
 REFERENCE COUNT: 73  
 \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L3 ANSWER 29 OF 110 SCISEARCH COPYRIGHT 2001 ISI (R)  
 ACCESSION NUMBER: 97:114525 SCISEARCH  
 THE GENUINE ARTICLE: WE900  
 TITLE: Role of SefA subunit protein of SEF14 fimbriae in the pathogenesis of **Salmonella** enterica serovar enteritidis  
 AUTHOR: Ogunniyi A D; Kotlarski I; Morona R; Manning P A (Reprint)  
 CORPORATE SOURCE: UNIV ADELAIDE, DEPT MICROBIOL & IMMUNOL, MICROBIAL PATHOGENESIS UNIT, ADELAIDE, SA 5005, AUSTRALIA (Reprint); UNIV ADELAIDE, DEPT MICROBIOL & IMMUNOL, MICROBIAL PATHOGENESIS UNIT, ADELAIDE, SA 5005, AUSTRALIA  
 COUNTRY OF AUTHOR: AUSTRALIA  
 SOURCE: INFECTION AND IMMUNITY, (FEB 1997) Vol. 65, No. 2, pp. 708-717.  
 Publisher: AMER SOC MICROBIOLOGY, 1325 MASSACHUSETTS AVENUE, NW, WASHINGTON, DC 20005-4171.  
 ISSN: 0019-9567.  
 DOCUMENT TYPE: Article; Journal  
 FILE SEGMENT: LIFE  
 LANGUAGE: English  
 REFERENCE COUNT: 67  
 \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L3 ANSWER 30 OF 110 SCISEARCH COPYRIGHT 2001 ISI (R)  
 ACCESSION NUMBER: 94:253849 SCISEARCH  
 THE GENUINE ARTICLE: NG717  
 TITLE: HYPERVARIABLE REGION-IV OF **SALMONELLA** GENE FLIC(D) ENCODES A DOMINANT SURFACE EPITOPE AND A STABILIZING FACTOR FOR FUNCTIONAL **FLAGELLA**  
 AUTHOR: HE X S; RIVKINA M; STOCKER B A D; ROBINSON W S (Reprint)  
 CORPORATE SOURCE: STANFORD UNIV, SCH MED, DEPT MED, STANFORD, CA, 94305 (Reprint); STANFORD UNIV, SCH MED, DEPT MED, STANFORD, CA, 94305; STANFORD UNIV, SCH MED, DEPT MICROBIOL & IMMUNOL, STANFORD, CA, 94305  
 COUNTRY OF AUTHOR: USA  
 SOURCE: JOURNAL OF BACTERIOLOGY, (APR 1994) Vol. 176, No. 8, pp. 2406-2414.  
 ISSN: 0021-9193.  
 DOCUMENT TYPE: Article; Journal  
 FILE SEGMENT: LIFE  
 LANGUAGE: ENGLISH  
 REFERENCE COUNT: 38  
 \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L3 ANSWER 31 OF 110 SCISEARCH COPYRIGHT 2001 ISI (R)  
 ACCESSION NUMBER: 93:702670 SCISEARCH  
 THE GENUINE ARTICLE: MH268

TITLE: GENETICALLY STABLE TEMPERATURE-SENSITIVE MUTANTS OF  
**SALMONELLA-TYPHI** INDUCE PROTECTION IN MICE  
AUTHOR: HOOKE A M (Reprint); CERQUETTI M C; ZELIGS B J; WANG Z;  
HOBERG K; BELLANTI J A  
CORPORATE SOURCE: GEORGETOWN UNIV, SCH MED, DEPT PEDIAT, WASHINGTON, DC,  
20007; GEORGETOWN UNIV, SCH MED, DEPT MICROBIOL,  
WASHINGTON, DC, 20007  
COUNTRY OF AUTHOR: USA  
SOURCE: VACCINE, (NOV 1993) Vol. 11, No. 14, pp. 1386-1389.  
ISSN: 0264-410X.  
DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: LIFE; AGRI  
LANGUAGE: ENGLISH  
REFERENCE COUNT: 26  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L3 ANSWER 32 OF 110 SCISEARCH COPYRIGHT 2001 ISI (R)  
ACCESSION NUMBER: 91:502382 SCISEARCH  
THE GENUINE ARTICLE: GD761  
TITLE: LIVE ATTENUATED **SALMONELLA VACCINES**  
AND THEIR POTENTIAL AS ORAL COMBINED **VACCINES**  
CARRYING HETEROLOGOUS ANTIGENS  
AUTHOR: HORMAECHE C E (Reprint)  
CORPORATE SOURCE: DEPT PATHOL, DIV MICROBIOL & PARASITOL, TENNIS COURT RD,  
CAMBRIDGE CB2 1LP, ENGLAND (Reprint)  
COUNTRY OF AUTHOR: ENGLAND  
SOURCE: JOURNAL OF IMMUNOLOGICAL METHODS, (1991) Vol. 142, No. 1,  
pp. 113-120.  
DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: ENGLISH  
REFERENCE COUNT: 92  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L3 ANSWER 33 OF 110 SCISEARCH COPYRIGHT 2001 ISI (R)  
ACCESSION NUMBER: 91:375345 SCISEARCH  
THE GENUINE ARTICLE: FU443  
TITLE: A **FLAGELLA**-LESS MUTANT OF BORRELIA-BURGDORFERI -  
STRUCTURAL, MOLECULAR, AND INVITRO FUNCTIONAL-  
CHARACTERIZATION  
AUTHOR: SADZIENE A; THOMAS D D; BUNDOC V G; HOLT S C; BARBOUR A G  
(Reprint)  
CORPORATE SOURCE: UNIV TEXAS, HLTH SCI CTR, DEPT MED, DIV INFECT DIS, SAN  
ANTONIO, TX, 78284; UNIV TEXAS, HLTH SCI CTR, DEPT  
MICROBIOL, SAN ANTONIO, TX, 78284; VILNIUS EXPTL & CLIN  
MED RES INST, VILNIUS 23200, USSR; WAKE FOREST UNIV,  
BOWMAN GRAY SCH MED, DEPT MICROBIOL & IMMUNOL, WINSTON  
SALEM, NC, 27103; UNIV TEXAS, HLTH SCI CTR, DEPT  
PERIODONT, SAN ANTONIO, TX, 78284  
COUNTRY OF AUTHOR: USA; USSR  
SOURCE: JOURNAL OF CLINICAL INVESTIGATION, (1991) Vol. 88, No. 1,  
pp. 82-92.  
DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: ENGLISH  
REFERENCE COUNT: 43  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L3 ANSWER 34 OF 110 USPATFULL  
ACCESSION NUMBER: 2001:97431 USPATFULL  
TITLE: Attenuated microorganism strains and their uses  
INVENTOR(S): Haefliger, Denise N., Lausanne, Switzerland  
Kraehenbuhl, Jean-Pierre, Rivaz, Switzerland  
PATENT ASSIGNEE(S): BTG International Limited, London, United Kingdom

(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6251406	B1	20010626
APPLICATION INFO.:	US 1999-413807		19991007 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-288861, filed on 9 Apr 1999 Continuation of Ser. No. WO 1997-GB2740, filed on 7 Oct 1997		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1996-21091	19961009
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Salimi, Ali R.	
LEGAL REPRESENTATIVE:	Nixon & Vanderhye	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	20 Drawing Figure(s); 8 Drawing Page(s)	
LINE COUNT:	1009	

L3 ANSWER 35 OF 110 USPATFULL  
ACCESSION NUMBER: 2001:93350 USPATFULL  
TITLE: Chromosomally-encoded membrane protein of borrelia burgdorferi  
INVENTOR(S): Aron, Lieselotte, Hartsdale, NY, United States  
Cabello, Felipe, Hartsdale, NY, United States  
Godfrey, Henry P., Scarsdale, NY, United States  
Schwartz, Ira, Spring Valley, NY, United States  
PATENT ASSIGNEE(S): New York Medical College, Valhalla, NY, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6248583	B1	20010619
APPLICATION INFO.:	US 1994-313412		19940927 (8)
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Allen, Marianne P.		
LEGAL REPRESENTATIVE:	Nixon Peabody LLP		
NUMBER OF CLAIMS:	8		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)		
LINE COUNT:	1285		

L3 ANSWER 36 OF 110 USPATFULL  
ACCESSION NUMBER: 2001:93284 USPATFULL  
TITLE: Decorin binding protein compositions and methods of use  
INVENTOR(S): Guo, Betty P., Boston, MA, United States  
Hook, Magnus, Houston, TX, United States  
PATENT ASSIGNEE(S): The Texas A & M University System, College Station, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6248517	B1	20010619
	WO 9634106		19961031
APPLICATION INFO.:	US 1997-945476		19971224 (8)
	WO 1996-US5886		19960424
			19971224 PCT 371 date
			19971224 PCT 102(e) date
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-589711, filed on 22 Jan 1996, now patented, Pat. No. US 5853987		
	Continuation-in-part of Ser. No. US 1995-427023, filed on 24 Apr 1995, now abandoned		

DOCUMENT TYPE: Utility  
PRIMARY EXAMINER: Zitomer, Stephanie W..  
LEGAL REPRESENTATIVE: Williams, Morgan and Amerson  
NUMBER OF CLAIMS: 57  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 42 Drawing Figure(s); 28 Drawing Page(s)  
LINE COUNT: 4945  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 37 OF 110 USPATFULL  
ACCESSION NUMBER: 2001:67794 USPATFULL  
TITLE: Human respiratory syncytial virus peptides with  
antifusogenic and antiviral activities  
INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States  
Lambert, Dennis Michael, Cary, NC, United States  
Petteway, Stephen Robert, Cary, NC, United States  
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6228983	B1	20010508
APPLICATION INFO.:	US 1995-485264		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Scheiner, Laurie		
ASSISTANT EXAMINER:	Parkin, Jeffrey S.		
LEGAL REPRESENTATIVE:	Pennie & Edmonds LLP		
NUMBER OF CLAIMS:	62		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	84 Drawing Figure(s); 83 Drawing Page(s)		
LINE COUNT:	32166		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 38 OF 110 USPATFULL  
ACCESSION NUMBER: 2001:67646 USPATFULL  
TITLE: Decorin binding protein compositions  
INVENTOR(S): Guo, Betty, Houston, TX, United States  
Hook, Magnus, Houston, TX, United States  
PATENT ASSIGNEE(S): The Texas A & M University System, College Station, TX,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6228835	B1	20010508
APPLICATION INFO.:	US 1998-221938		19981228 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-589711, filed on 22 Jan 1996, now patented, Pat. No. US 5853987, issued on 29 Dec 1998 Continuation-in-part of Ser. No. US 1995-427023, filed on 24 Apr 1995, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Zitomer, Stephanie W.		
LEGAL REPRESENTATIVE:	Williams, Morgan and Amerson		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	25 Drawing Figure(s); 14 Drawing Page(s)		
LINE COUNT:	4504		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 39 OF 110 USPATFULL  
ACCESSION NUMBER: 2001:55947 USPATFULL  
TITLE: Methods and products for stimulating the immune system  
using immunotherapeutic oligonucleotides and cytokines  
INVENTOR(S): Krieg, Arthur M., Iowa City, IA, United States  
Weiner, George, Iowa City, IA, United States  
PATENT ASSIGNEE(S): University of Iowa Research Foundation, Iowa City, IA,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6218371	B1	20010417
APPLICATION INFO.:	US 1999-286098		19990402 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-80729	19980403 (60)
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Yucel, Remy	
ASSISTANT EXAMINER:	Zara, Jane	
LEGAL REPRESENTATIVE:	Wolf, Greenfield & Sacks, P.C.	
NUMBER OF CLAIMS:	23	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Figure(s); 9 Drawing Page(s)	
LINE COUNT:	2746	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 40 OF 110 USPATFULL  
ACCESSION NUMBER: 2001:51579 USPATFULL  
TITLE: DbpA compositions  
INVENTOR(S): Guo, Betty P., Boston, MA, United States  
Hook, Magnus, Houston, TX, United States  
PATENT ASSIGNEE(S): Texas A & M University System, College Station, TX,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6214355	B1	20010410
	WO 9727301		19970731
APPLICATION INFO.:	US 1998-117257		19980722 (9)
	WO 1996-US17081		19961022
			19981029 PCT 371 date
			19981029 PCT 102(e) date
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 945476 Continuation-in-part of Ser. No. US 1996-589711, filed on 22 Jan 1996, now patented, Pat. No. US 5853987, issued on 29 Dec 1998 Continuation-in-part of Ser. No. US 1995-427023, filed on 24 Apr 1995, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Zitomer, Stephanie W.		
LEGAL REPRESENTATIVE:	Williams, Morgan and Amerson		
NUMBER OF CLAIMS:	39		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	34 Drawing Figure(s); 31 Drawing Page(s)		
LINE COUNT:	5444		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 41 OF 110 USPATFULL  
ACCESSION NUMBER: 2001:40233 USPATFULL  
TITLE: 66 kDa antigen from Borrelia  
INVENTOR(S): Bergstrom, Sven, Umea, Sweden  
Barbour, Alan George, Irvine, CA, United States  
PATENT ASSIGNEE(S): Symbicom Aktiebolag, Umea, Sweden (non-U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6204018	B1	20010320
	WO 9535379		19951228
APPLICATION INFO.:	US 1997-750494		19970612 (8)
	WO 1995-US7665		19950619
			19970612 PCT 371 date
			19970612 PCT 102(e) date
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-262220, filed on 20 Jun 1994, now patented, Pat. No. US 6054296		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Minnifield, Nita M.		
LEGAL REPRESENTATIVE:	Frommer Lawrence & Haug LLP, Frommer, William S., Kolawski, Thomas J.		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)		
LINE COUNT:	2159		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 42 OF 110 USPATFULL  
 ACCESSION NUMBER: 2001:40219 USPATFULL  
 TITLE: Immunodiagnostic test for enterohemorrhagic Escherichia coli infection  
 INVENTOR(S): Kaper, James B., Pasadena, MD, United States  
 Jarvis, Karen, Arnold, MD, United States  
 PATENT ASSIGNEE(S): University of Maryland, Baltimore, Baltimore, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6204004	B1	20010320
APPLICATION INFO.:	US 1997-821872		19970321 (8)
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Smith, Lynette R. F.		
ASSISTANT EXAMINER:	Portner, Ginny Allen		
LEGAL REPRESENTATIVE:	Smith, Chalin A., Marks, David L.		
NUMBER OF CLAIMS:	12		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	9 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	970		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 43 OF 110 USPATFULL  
 ACCESSION NUMBER: 2001:25436 USPATFULL  
 TITLE: Attenuated mutants of **salmonella** which constitutively express the Vi antigen  
 INVENTOR(S): Noriega, Fernando R., Baltimore, MD, United States  
 Sztejn, Marcelo B., Columbia, MD, United States  
 Levine, Myron M., Columbia, MD, United States  
 PATENT ASSIGNEE(S): University of Maryland, Baltimore, Baltimore, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6190669	B1	20010220
APPLICATION INFO.:	US 1998-76761		19980513 (9)
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Duffy, Patricia A.		
LEGAL REPRESENTATIVE:	Sughrue, Mion, Zinn Macpeak & Seas. PLLC		
NUMBER OF CLAIMS:	23		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 15 Drawing Page(s)		

LINE COUNT: 1873  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 44 OF 110 USPATFULL  
ACCESSION NUMBER: 2001:25429 USPATFULL  
TITLE: Materials and methods relating to the attachment and  
display of substances on cell surfaces  
INVENTOR(S): Steidler, Lothar, Ghent, Belgium  
Remaut, Erik, Ghent, Belgium  
Wells, Jeremy Mark, Cambridge, United Kingdom  
PATENT ASSIGNEE(S): Vlaams Interuniversitair Instituut voor Biotechnologie  
(VIB) vzw, Zwijnaarde, Belgium (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6190662	B1	20010220
APPLICATION INFO.:	US 1998-36609		19980306 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. WO 1996-GB2195, filed on 6 Sep 1996		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1995-18323	19950907
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Navarro, Albert	
LEGAL REPRESENTATIVE:	Pennie & Edmonds LLP	
NUMBER OF CLAIMS:	24	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 7 Drawing Page(s)	
LINE COUNT:	964	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 45 OF 110 USPATFULL  
ACCESSION NUMBER: 2001:13969 USPATFULL  
TITLE: **Vaccine** delivery system  
INVENTOR(S): Stein, Daniel C., Silver Spring, MD, United States  
Stover, Charles K., Mercer Island, WA, United States  
PATENT ASSIGNEE(S): University of Maryland, College Park, MD, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6180111	B1	20010130
APPLICATION INFO.:	US 1998-81576		19980519 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1997-936522, filed on 23 Sep 1997, now abandoned Continuation of Ser. No. US 1995-443514, filed on 18 May 1995, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Graser, Jennifer		
LEGAL REPRESENTATIVE:	Long Aldridge & Norman		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	11 Drawing Figure(s); 9 Drawing Page(s)		
LINE COUNT:	1298		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 46 OF 110 USPATFULL  
ACCESSION NUMBER: 2000:164709 USPATFULL  
TITLE: Plant artificial chromosome compositions and methods  
INVENTOR(S): Preuss, Daphne, Chicago, IL, United States  
Copenhaver, Gregory, Oak Park, IL, United States  
PATENT ASSIGNEE(S): University of Chicago, Chicago, IL, United States (U.S. corporation)



	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6156953		20001205
APPLICATION INFO.:	US 1998-90051		19980603 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-48451	19970603 (60)
	US 1998-73741	19980205 (60)
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Smith, Lynette R.F.	
ASSISTANT EXAMINER:	Zaghmout, Ousama M-Fail	
LEGAL REPRESENTATIVE:	Fulbright & Jaworski LLP	
NUMBER OF CLAIMS:	27	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 40 Drawing Page(s)	
LINE COUNT:	3342	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 47 OF 110 USPATFULL  
 ACCESSION NUMBER: 2000:149944 USPATFULL  
 TITLE: Peptide and protein fusions to thioredoxin, thioredoxin-like molecules, and modified thioredoxin-like molecules  
 INVENTOR(S): McCoy, John, Reading, MA, United States  
 DiBlasio-Smith, Elizabeth, Tyngsboro, MA, United States  
 Grant, Kathleen, Salem, MA, United States  
 LaVallie, Edward R., Tewksbury, MA, United States  
 PATENT ASSIGNEE(S): Genetics Institute, Inc., Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6143524		20001107
APPLICATION INFO.:	US 1997-810436		19970304 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1993-165301, filed on 10 Dec 1993, now patented, Pat. No. US 5646016 which is a continuation-in-part of Ser. No. US 1992-921848, filed on 28 Jul 1992, now patented, Pat. No. US 5292646, issued on 8 Mar 1994 which is a continuation-in-part of Ser. No. US 1991-745382, filed on 14 Aug 1991, now patented, Pat. No. US 5270181, issued on 14 Dec 1993 which is a continuation-in-part of Ser. No. US 1991-652531, filed on 6 Feb 1991, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Walsh, Stephen		
ASSISTANT EXAMINER:	Mertz, Prema		
LEGAL REPRESENTATIVE:	Lazar, Steven R.		
NUMBER OF CLAIMS:	7		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	12 Drawing Figure(s); 12 Drawing Page(s)		
LINE COUNT:	2534		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 48 OF 110 USPATFULL  
 ACCESSION NUMBER: 2000:134749 USPATFULL  
 TITLE: Recombinant **flagellin vaccines**  
 INVENTOR(S): Majarian, William R., Mt. Royal, NJ, United States  
 Stocker, Bruce A. D., Palo Alto, CA, United States  
 Newton, Salete M. C., Mountain View, CA, United States  
 PATENT ASSIGNEE(S): American Cyanamid Company, Madison, NJ, United States (U.S. corporation)  
 The Board of Trustees of the Leland Stanford Junior University, Stanford, CA, United States (U.S.)

corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6130082		20001010
APPLICATION INFO.:	US 1992-837668		19920214 (7)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1989-348430, filed on 5 May 1989, now abandoned which is a continuation-in-part of Ser. No. US 1988-190570, filed on 5 May 1988, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Mosher, Mary E.		
LEGAL REPRESENTATIVE:	Hamilton, Brook, Smith & Reynolds, P.C.		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	15 Drawing Figure(s); 17 Drawing Page(s)		
LINE COUNT:	2404		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 49 OF 110 USPATFULL  
ACCESSION NUMBER: 2000:105428 USPATFULL  
TITLE: Oral **vaccines**  
INVENTOR(S): Russell-Jones, Gregory John, Willoughby, United Kingdom  
Howe, Peter, West Pennant Hills, United Kingdom  
de Aizpurua, Henry James, Bexley, United Kingdom  
Rand, Keith Norman, Chatswood, United Kingdom  
PATENT ASSIGNEE(S): Biotechnology Australia PTY, LTD, New South Wales,  
Australia (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6103243		20000815
APPLICATION INFO.:	US 1995-458814		19950602 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-327822, filed on 18 Oct 1994 which is a continuation of Ser. No. US 1993-158478, filed on 29 Nov 1993 which is a continuation of Ser. No. US 15810		

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1985-566	19850515
	AU 1985-3104	19851025
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Hutzell, Paula K.	
ASSISTANT EXAMINER:	Gucker, Stephen	
LEGAL REPRESENTATIVE:	Foley & Lardner	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)	
LINE COUNT:	1741	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L3 ANSWER 50 OF 110 USPATFULL  
ACCESSION NUMBER: 2000:91741 USPATFULL  
TITLE: 66 kDa antigen from *Borrelia*  
INVENTOR(S): Bergstrom, Sven, Umea, Sweden  
Barbour, Alan George, San Antonio, TX, United States  
PATENT ASSIGNEE(S): Symbicom AB, Umea, Sweden (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6090586		20000718
APPLICATION INFO.:	US 1995-468878		19950606 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-262220, filed on 20 Jun		

1994 which is a continuation-in-part of Ser. No. US 1993-79601, filed on 22 Jun 1993, now patented, Pat. No. US 5523089 which is a continuation of Ser. No. US 1992-924798, filed on 6 Aug 1992, now abandoned which is a continuation of Ser. No. US 1989-422881, filed on 18 Oct 1989, now abandoned

DOCUMENT TYPE: Utility  
PRIMARY EXAMINER: Housel, James C.  
ASSISTANT EXAMINER: Ryan, V.  
LEGAL REPRESENTATIVE: Frommer, Esq., William S., Kowalski, Esq., Thomas J. Frommer Lawrence & Haug LLP  
NUMBER OF CLAIMS: 21  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 11 Drawing Figure(s); 5 Drawing Page(s)  
LINE COUNT: 3064  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 51 OF 110 USPATFULL  
ACCESSION NUMBER: 2000:87935 USPATFULL  
TITLE: Gene encoding invasion protein of campylobacter species  
INVENTOR(S): Chan, Voon Loong, 93 Elm Ridge Drive, Toronto, Ontario, Canada M6B 1A6  
Joe, Angela, #1122, 341 Bloor Street West, Toronto, Ontario, Canada M5S 1N8  
Hong, Yuwen, 300 Regina Street North, Waterloo, Ontario, Canada N2J 4H2

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6087105		20000711
APPLICATION INFO.:	US 1998-56783		19980408 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43414	19970408 (60)
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Housel, James C.	
ASSISTANT EXAMINER:	Portner, Ginny Allen	
LEGAL REPRESENTATIVE:	Bereskin & Parr	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 6 Drawing Page(s)	
LINE COUNT:	1803	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L3 ANSWER 52 OF 110 USPATFULL  
ACCESSION NUMBER: 2000:77033 USPATFULL  
TITLE: **Flagella-less borrelia**  
INVENTOR(S): Barbour, Alan G., San Antonio, TX, United States  
Bundoc, Virgilio G., Newbury Park, CA, United States  
Sadziene, Adriadna, San Antonio, TX, United States  
PATENT ASSIGNEE(S): The University of Texas System, Board of Regents, Austin, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6077515		20000620
APPLICATION INFO.:	US 1996-696372		19960813 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-124290, filed on 20 Sep 1993, now patented, Pat. No. US 5585102, issued on 17 Dec 1996 which is a continuation of Ser. No. US 1991-641143, filed on 11 Jan 1991, now patented, Pat. No. US 5436000, issued on 25 Jul 1995		
DOCUMENT TYPE:	Utility		

PRIMARY EXAMINER: Housel, James C.  
ASSISTANT EXAMINER: Ryan, V.  
LEGAL REPRESENTATIVE: Arnold White & Durkee  
NUMBER OF CLAIMS: 5  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 14 Drawing Page(s)  
LINE COUNT: 1355

L3 ANSWER 53 OF 110 USPATFULL  
ACCESSION NUMBER: 2000:67433 USPATFULL  
TITLE: 66 kDa antigen from Borrelia  
INVENTOR(S): Bergstrom, Sven, Umea, Sweden  
Barbour, Alan George, San Antonio, TX, United States  
PATENT ASSIGNEE(S): Symbicom AB, Ulmea, Sweden (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6068842		20000530
APPLICATION INFO.:	US 1995-471733		19950606 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-262220, filed on 20 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-79601, filed on 22 Jun 1993, now patented, Pat. No. US 5523089 which is a continuation of Ser. No. US 1992-924798, filed on 6 Aug 1992, now abandoned which is a continuation of Ser. No. US 1989-422881, filed on 18 Oct 1989, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Housel, James C.		
ASSISTANT EXAMINER:	Ryan, V.		
LEGAL REPRESENTATIVE:	Frommer, Esq., William S., Kowalski, Esq., Thomas J. Frommer Lawrence & Haug LLP		
NUMBER OF CLAIMS:	16		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	11 Drawing Figure(s); 5 Drawing Page(s)		
LINE COUNT:	3138		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 54 OF 110 USPATFULL  
ACCESSION NUMBER: 2000:50546 USPATFULL  
TITLE: 66 kDa antigen from Borrelia  
INVENTOR(S): Bergstrom, Sven, Umea, Sweden  
Barbour, Alan George, San Antonio, TX, United States  
PATENT ASSIGNEE(S): Symbicom AB, Umea, Sweden (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6054296		20000425
APPLICATION INFO.:	US 1994-262220		19940620 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-79601, filed on 22 Jun 1993, now patented, Pat. No. US 5523089 which is a continuation of Ser. No. US 1992-924798, filed on 6 Aug 1992, now abandoned which is a continuation of Ser. No. US 1989-422881, filed on 18 Oct 1989, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	DK 1988-5902	19881024
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Housel, James C.	
ASSISTANT EXAMINER:	Ryan, V.	
LEGAL REPRESENTATIVE:	Frommer, Esq., William S., Kowalski, Esq., Thomas J. Frommer Lawrence & Haug LLP	
NUMBER OF CLAIMS:	32	

EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 11 Drawing Figure(s); 5 Drawing Page(s)  
LINE COUNT: 3433  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 55 OF 110 USPATFULL  
ACCESSION NUMBER: 2000:21382 USPATFULL  
TITLE: Methods for producing soluble, biologically-active  
disulfide-bond containing eukaryotic proteins in  
bacterial cells  
INVENTOR(S): Georgiou, George, Austin, TX, United States  
Ostermeier, Marc, State College, PA, United States  
PATENT ASSIGNEE(S): Board of Regents, The University of Texas System,  
Austin, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6027888		20000222
APPLICATION INFO.:	US 1997-834516		19970404 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-14950	19960405 (60)
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Guzo, David	
ASSISTANT EXAMINER:	Sandals, William	
LEGAL REPRESENTATIVE:	Arnold, White & Durkee	
NUMBER OF CLAIMS:	40	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Figure(s); 7 Drawing Page(s)	
LINE COUNT:	4029	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 56 OF 110 USPATFULL  
ACCESSION NUMBER: 2000:18049 USPATFULL  
TITLE: Recombinant avirulent immunogenic S typhi having rpos  
positive phenotype  
INVENTOR(S): Curtiss, III, Roy, St. Louis, MO, United States  
Nickerson, Cheryl A., Chesterfield, MO, United States  
PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6024961		20000215
APPLICATION INFO.:	US 1997-970789		19971114 (8)
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Mosher, Mary E.		
LEGAL REPRESENTATIVE:	Howell & Haferkamp, L.C.		
NUMBER OF CLAIMS:	41		
EXEMPLARY CLAIM:	1,39		
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 10 Drawing Page(s)		
LINE COUNT:	2837		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 57 OF 110 USPATFULL  
ACCESSION NUMBER: 2000:9719 USPATFULL  
TITLE: Method of limiting the survival of genetically  
engineered microorganisms in their environment  
INVENTOR(S): Molin, Soren, Holte, Denmark  
Givskov, Michael, Copenhagen, Denmark  
Kristensen, Claus Sternberg, Copenhagen N., Denmark  
Bej, Asim K., Birmingham, AL, United States  
Eberl, Leo, Graz, Austria

PATENT ASSIGNEE(S): GX BioSystems A/S, Copenhagen, Denmark (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6017730		20000125
APPLICATION INFO.:	US 1998-70964		19980504 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-544822, filed on 18 Oct 1995, now patented, Pat. No. US 5834233 which is a continuation-in-part of Ser. No. US 1993-133665, filed on 13 Oct 1993, now abandoned which is a continuation of Ser. No. US 1992-863261, filed on 6 Apr 1992, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Brusca, John S.		
LEGAL REPRESENTATIVE:	Cooper, Iver P.		
NUMBER OF CLAIMS:	29		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	43 Drawing Figure(s); 43 Drawing Page(s)		
LINE COUNT:	4073		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 58 OF 110 USPATFULL  
ACCESSION NUMBER: 2000:4664 USPATFULL  
TITLE: Hippuricase gene  
INVENTOR(S): Chan, Voon Loong, 93 Elmridge Dr., Toronto Ontario M6B 1A6, Canada  
Hani, Eric Kurt, 37 Greengrove Crescent, Toronto Ontario M3A 1H8, Canada

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6013501		20000111
APPLICATION INFO.:	US 1997-853552		19970509 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-485216, filed on 7 Jun 1995, now patented, Pat. No. US 5695960 which is a continuation of Ser. No. WO 1994-CA270, filed on 13 May 1994 which is a continuation-in-part of Ser. No. US 1993-61696, filed on 14 May 1993, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Saidha, Tekchand		
LEGAL REPRESENTATIVE:	Merchant & Gould		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	1677		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 59 OF 110 USPATFULL  
ACCESSION NUMBER: 1999:141596 USPATFULL  
TITLE: Hippuricase gene  
INVENTOR(S): Chan, Voon Loong, 93 Elmridge Drive, Toronto Ontario, Canada M6B 1A6  
Hani, Eric Kurt, 37 Greengrove Crescent, Toronto Ontario, Canada M3A 1H8

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5981189		19991109
APPLICATION INFO.:	US 1998-3245		19980106 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-853552, filed on 9 May 1997 which is a division of Ser. No. US 1995-485216, filed on 7 Jun 1995, now patented, Pat. No. US 5695960		

which is a continuation of Ser. No. WO 1994-CA270,  
filed on 13 May 1994 which is a continuation-in-part of  
Ser. No. US 1993-61696, filed on 14 May 1993, now  
abandoned

DOCUMENT TYPE: Utility  
PRIMARY EXAMINER: Achutamurthy, Ponnathapura  
ASSISTANT EXAMINER: Saidha, Tekchand  
LEGAL REPRESENTATIVE: Merchant & Gould  
NUMBER OF CLAIMS: 3  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 7 Drawing Page(s)  
LINE COUNT: 1711  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 60 OF 110 USPATFULL  
ACCESSION NUMBER: 1999:136988 USPATFULL  
TITLE: Immunopotential through covalent linkage between  
immunogen and immunopotentiating molecules  
INVENTOR(S): Barnes, Thomas Michael, Lane Cove, Australia  
Lehrbach, Philip Ralph, Wahroonga, Australia  
Russell-Jones, Gregory John, Middle Cove, Australia  
PATENT ASSIGNEE(S): Bioenterprises PTY Limited, Roseville, Australia  
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5976839		19991102
APPLICATION INFO.:	US 1995-461003		19950605 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1992-903121, filed on 23 Jun 1992, now abandoned which is a continuation of Ser. No. US 1987-159968, filed on 21 Feb 1987, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1987-846	19870313
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Caputa, Anthony C.	
ASSISTANT EXAMINER:	Navarro, Mark	
LEGAL REPRESENTATIVE:	Foley & Lardner	
NUMBER OF CLAIMS:	18	
EXEMPLARY CLAIM:	2	
NUMBER OF DRAWINGS:	14 Drawing Figure(s); 7 Drawing Page(s)	
LINE COUNT:	690	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L3 ANSWER 61 OF 110 USPATFULL  
ACCESSION NUMBER: 1999:120887 USPATFULL  
TITLE: Stable pura vectors and uses therefor  
INVENTOR(S): Brey, Robert N., Rochester, NY, United States  
Fulginiti, James P., Canandaigua, NY, United States  
Anilionis, Algis, Pittsford, NY, United States  
PATENT ASSIGNEE(S): Praxis Biologics, Inc., West Henrietta, NJ, United  
States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5961983		19991005
APPLICATION INFO.:	US 1995-448907		19950524 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-380297, filed on 30 Jan 1995 which is a continuation of Ser. No. US 1994-204903, filed on 2 Mar 1994, now abandoned which is a continuation of Ser. No. US 1991-695706, filed on 3 May 1991, now abandoned		
DOCUMENT TYPE:	Utility		

PRIMARY EXAMINER: Ketter, James  
ASSISTANT EXAMINER: Brusca, John S.  
LEGAL REPRESENTATIVE: Hamilton, Brook, Smith & Reynolds, P.C.  
NUMBER OF CLAIMS: 32  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 13 Drawing Figure(s); 9 Drawing Page(s)  
LINE COUNT: 1389  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 62 OF 110 USPATFULL

ACCESSION NUMBER: 1999:85216 USPATFULL  
TITLE: Compositions comprising isolated Helicobacter pylori  
CagI polynucleotides and method of preparation thereof  
INVENTOR(S): Covacci, Antonello, Siena, Italy  
PATENT ASSIGNEE(S): Chiron S.p.A., Italy (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5928865		19990727
APPLICATION INFO.:	US 1995-477451		19950607 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-425194, filed on 20 Apr 1995, now abandoned And Ser. No. US 1995-471491, filed on 6 Jun 1995 which is a division of Ser. No. US 256848		

	NUMBER	DATE
PRIORITY INFORMATION:	IT 1992-FI52	19920302
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Housel, James C.	
ASSISTANT EXAMINER:	Portner, Ginny Allen	
LEGAL REPRESENTATIVE:	Woodcock, Washburn, Kurtz, Mackiewicz & Norris, Harbin, Alisa A., Blackburn, Robert P.	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 120 Drawing Page(s)	
LINE COUNT:	6155	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 63 OF 110 USPATFULL

ACCESSION NUMBER: 1999:78568 USPATFULL  
TITLE: Adhesin genes and proteins involved in trichomonas  
vaginalis cytoadherence  
INVENTOR(S): Alderete, John F., San Antonio, TX, United States  
PATENT ASSIGNEE(S): Board of Regents, The University of Texas System,  
Austin, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5922563		19990713
APPLICATION INFO.:	US 1995-504459		19950720 (8)
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Longton, Enrique D.		
LEGAL REPRESENTATIVE:	Arnold, White & Durkee		
NUMBER OF CLAIMS:	41		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	14 Drawing Figure(s); 11 Drawing Page(s)		
LINE COUNT:	3561		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 64 OF 110 USPATFULL

ACCESSION NUMBER: 1999:75520 USPATFULL  
TITLE: Stable purA vectors and uses therefor



INVENTOR(S): Brey, Robert N., Rochester, NY, United States  
Fulginiti, James P., Canandaigua, NY, United States  
Anilionis, Algis, Pittsford, NY, United States  
PATENT ASSIGNEE(S): American Cyanamid Company, Madison, NJ, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5919663		19990706
APPLICATION INFO.:	US 1995-380297		19950130 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-204903, filed on 2 Mar 1994, now abandoned which is a continuation of Ser. No. US 1991-695706, filed on 3 May 1991, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Ketter, James		
ASSISTANT EXAMINER:	Brusca, John S.		
LEGAL REPRESENTATIVE:	Hamilton, Brook, Smith & Reynolds, P.C.		
NUMBER OF CLAIMS:	41		
EXEMPLARY CLAIM:	8		
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 9 Drawing Page(s)		
LINE COUNT:	1390		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 65 OF 110 USPATFULL  
ACCESSION NUMBER: 1999:40230 USPATFULL  
TITLE: Campylobacteri jejuni flagellin-escherichia coli LT-B fusion protein  
INVENTOR(S): Meinersmann, Richard J., Lithonia, GA, United States  
Khoury, Christian A., Philadelphia, PA, United States  
PATENT ASSIGNEE(S): The United States of America as represented by the Secretary of Agriculture, Washington, DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5888810		19990330
APPLICATION INFO.:	US 1997-784218		19970116 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1993-150305, filed on 12 Nov 1993, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Caputa, Anthony C.		
LEGAL REPRESENTATIVE:	Silverstein, M. Howard, Fado, John, Graeter, Janelle S.		
NUMBER OF CLAIMS:	2		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 3 Drawing Page(s)		
LINE COUNT:	805		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 66 OF 110 USPATFULL  
ACCESSION NUMBER: 1999:27448 USPATFULL  
TITLE: Methods and compositions for the preparation of recombinant Trichomonas vaginalis proteins and peptides  
INVENTOR(S): Alderete, John F., San Antonio, TX, United States  
PATENT ASSIGNEE(S): Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5876985		19990302
APPLICATION INFO.:	US 1994-259966		19940614 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1991-692382, filed on 25 Apr 1991, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Patterson, Jr., Charles L.		

ASSISTANT EXAMINER: Moore, William W.  
LEGAL REPRESENTATIVE: Arnold, White & Durkee  
NUMBER OF CLAIMS: 21  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 18 Drawing Figure(s); 12 Drawing Page(s)  
LINE COUNT: 2363  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 67 OF 110 USPATFULL

ACCESSION NUMBER: 1999:24309 USPATFULL  
TITLE: Immunopotentiating complexes comprising TraT proteins  
INVENTOR(S): Barnes, Thomas Michael, Lane Cove, Australia  
Lehrbach, Philip Ralph, Wahroonga, Australia  
Russell-Jones, Gregory John, Middle Cove, Australia  
PATENT ASSIGNEE(S): Bioenterprises Pty Limited, East Roseville, Australia  
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5874083		19990223
APPLICATION INFO.:	US 1995-461324		19950605 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1992-903121, filed on 23 Jun 1992, now abandoned which is a continuation of Ser. No. US 1987-159968, filed on 21 Dec 1987, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1986-5559	19860421
	AU 1987-846	19870313
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Sidberry, Hazel F.	
LEGAL REPRESENTATIVE:	Foley & Lardner	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 7 Drawing Page(s)	
LINE COUNT:	822	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 68 OF 110 USPATFULL

ACCESSION NUMBER: 1999:1223 USPATFULL  
TITLE: Avirulent microbes and uses therefor  
INVENTOR(S): Curtiss, III, Roy, St. Louis, MO, United States  
Kelly, Sandra M., St. Louis, MO, United States  
PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5855880		19990105
APPLICATION INFO.:	US 1996-596732		19960205 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-209542, filed on 10 Mar 1994 which is a continuation-in-part of Ser. No. US 1990-612001, filed on 9 Nov 1990, now abandoned which is a continuation-in-part of Ser. No. US 1988-200934, filed on 1 Jun 1988, now abandoned which is a continuation-in-part of Ser. No. US 1987-58360, filed on 4 Jun 1987, now abandoned, said Ser. No. US -200934 which is a continuation-in-part of Ser. No. US 1988-251304, filed on 3 Oct 1988, now abandoned which is a continuation-in-part of Ser. No. US 1987-106072, filed on 7 Oct 1987, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Scheiner, Laurie		
LEGAL REPRESENTATIVE:	Howell & Haferkamp, L.C.		

NUMBER OF CLAIMS: 9  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 6 Drawing Page(s)  
LINE COUNT: 3409  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 69 OF 110 USPATFULL  
ACCESSION NUMBER: 1999:1222 USPATFULL  
TITLE: Avirulent microbes and uses therefor  
INVENTOR(S): Curtiss III, Roy, St. Louis, MO, United States  
PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5855879		19990105
APPLICATION INFO.:	US 1994-209542		19940310 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1991-785748, filed on 7 Nov 1991, now patented, Pat. No. US 5294441 which is a continuation-in-part of Ser. No. US 1990-612001, filed on 9 Nov 1990, now abandoned which is a continuation-in-part of Ser. No. US 1988-200934, filed on 1 Jun 1988, now abandoned which is a continuation-in-part of Ser. No. US 1987-58360, filed on 4 Jun 1987, now abandoned, said Ser. No. US -612001 which is a continuation-in-part of Ser. No. US 1988-251304, filed on 3 Oct 1988, now abandoned which is a continuation-in-part of Ser. No. US 1987-106072, filed on 7 Oct 1987, now abandoned		

DOCUMENT TYPE: Utility  
PRIMARY EXAMINER: Scheiner, Laurie  
LEGAL REPRESENTATIVE: Howell & Haferkamp, L.C.  
NUMBER OF CLAIMS: 9  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 6 Drawing Page(s)  
LINE COUNT: 3399  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 70 OF 110 USPATFULL  
ACCESSION NUMBER: 1998:162259 USPATFULL  
TITLE: Decorin binding protein compositions and methods of use  
INVENTOR(S): Guo, Betty, Houston, TX, United States  
Hook, Magnus, Houston, TX, United States  
PATENT ASSIGNEE(S): The Texas A & M University System, College Station, TX,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5853987		19981229
APPLICATION INFO.:	US 1996-589711		19960122 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-427023, filed on 24 Apr 1995, now abandoned		

DOCUMENT TYPE: Utility  
PRIMARY EXAMINER: Horlick, Kenneth R.  
ASSISTANT EXAMINER: Tung, Joyce  
LEGAL REPRESENTATIVE: Arnold, White & Durkee  
NUMBER OF CLAIMS: 68  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 25 Drawing Figure(s); 14 Drawing Page(s)  
LINE COUNT: 4684  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 71 OF 110 USPATFULL  
ACCESSION NUMBER: 1998:156927 USPATFULL

TITLE: Binding domains from Plasmodium vivax and Plasmodium falciparum erythrocyte binding proteins

INVENTOR(S): Sim, Kim Lee, Gaithersburg, MD, United States  
Chitnis, Chetan, Washington, DC, United States  
Miller, Louis H., Bethesda, MD, United States  
Peterson, David S., Rockville, MD, United States  
Su, Xin-Zhuan, Rockville, MD, United States  
Wellems, Thomas E., Rockville, MD, United States

PATENT ASSIGNEE(S): The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5849306		19981215
APPLICATION INFO.:	US 1995-568459		19951207 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-119677, filed on 10 Sep 1993, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Cunningham, Thomas M.		
LEGAL REPRESENTATIVE:	Knobbe, Martens, Olson & Bear, LLP		
NUMBER OF CLAIMS:	12		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 4 Drawing Page(s)		
LINE COUNT:	2490		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 72 OF 110 USPATFULL

ACCESSION NUMBER: 1998:150449 USPATFULL

TITLE: **Salmonella vaccines**

INVENTOR(S): Miller, Samuel I., Seattle, WA, United States  
Mekalanos, John J., Cambridge, MA, United States

PATENT ASSIGNEE(S): The General Hospital Corporation, Boston, MS, United States (U.S. corporation)  
President and Fellows of Harvard College, Cambridge, MS, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5843426		19981201
APPLICATION INFO.:	US 1995-565861		19951201 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-271354, filed on 6 Jul 1994, now patented, Pat. No. US 5695983 which is a continuation-in-part of Ser. No. US 1993-90526, filed on 9 Jul 1993, now patented, Pat. No. US 5599537 which is a continuation-in-part of Ser. No. US 1990-629602, filed on 18 Dec 1990, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	LeGuvader, John L.		
ASSISTANT EXAMINER:	Brusca, John S.		
LEGAL REPRESENTATIVE:	Fish & Richardson P.C.		
NUMBER OF CLAIMS:	1		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	25 Drawing Figure(s); 20 Drawing Page(s)		
LINE COUNT:	4505		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 73 OF 110 USPATFULL

ACCESSION NUMBER: 1998:147236 USPATFULL

TITLE: Antibodies directed to pagC peptides for the detection of **salmonellae**

INVENTOR(S): Schubert, Peter, Darmstadt, Germany, Federal Republic of  
Neumann, Siegfried, Seeheim-Jugenheim, Germany, Federal

Republic of  
 Burger, Christa, Darmstadt, Germany, Federal Republic  
 of  
 Linxweiler, Winfried, GroB-Umstadt, Germany, Federal  
 Republic of  
 Bubert, Andreas, Gerbrunn, Germany, Federal Republic of  
 Goebel, Werner, Veitschochheim, Germany, Federal  
 Republic of  
 Mollenkopf, Hans-Joachim, Randersacker, Germany,  
 Federal Republic of  
 PATENT ASSIGNEE(S): Merck Patent Gesellschaft mit Beschränkter Haftung,  
 Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5840513		19981124
APPLICATION INFO.:	US 1995-372197		19950113 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1994-4400990	19940114
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Caputa, Anthony C.	
LEGAL REPRESENTATIVE:	Millen, White, Zelano & Branigan, P.C.	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	673	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 74 OF 110 USPATFULL  
 ACCESSION NUMBER: 1998:144221 USPATFULL  
 TITLE: Campylobacter jejuni **flagellin**/Escherichia  
 coli LT-B fusion protein  
 INVENTOR(S): Meinersmann, Richard J., Lithonia, GA, United States  
 Khoury, Christian A., Philadelphia, PA, United States  
 PATENT ASSIGNEE(S): The United States of America as represented by the  
 Secretary of Agriculture, Washington, DC, United States  
 (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5837825		19981117
APPLICATION INFO.:	US 1997-829026		19970331 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-150305, filed on 12 Nov 1993, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Caputa, Anthony C.		
LEGAL REPRESENTATIVE:	Silverstein, M. Howard, Fado, John, Graeter, Janelle S.		
NUMBER OF CLAIMS:	1		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 3 Drawing Page(s)		
LINE COUNT:	803		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 75 OF 110 USPATFULL  
 ACCESSION NUMBER: 1998:143904 USPATFULL  
 TITLE: Directed evolution of novel binding proteins  
 INVENTOR(S): Ladner, Robert Charles, Ijamsville, MD, United States  
 Gutterman, Sonia Kosow, Belmont, MA, United States  
 Roberts, Bruce Lindsay, Milford, MA, United States  
 Markland, William, Milford, MA, United States  
 Ley, Arthur Charles, Newton, MA, United States  
 Kent, Rachel Baribault, Boxborough, MA, United States

PATENT ASSIGNEE(S): Dyax, Corp., Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5837500		19981117
APPLICATION INFO.:	US 1995-415922		19950403 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-9319, filed on 26 Jan 1993, now patented, Pat. No. US 5403484 which is a division of Ser. No. US 1991-664989, filed on 1 Mar 1991, now patented, Pat. No. US 5223409 which is a continuation-in-part of Ser. No. US 1990-487063, filed on 2 Mar 1990, now abandoned which is a continuation-in-part of Ser. No. US 1988-240160, filed on 2 Sep 1988, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Ulm, John		
LEGAL REPRESENTATIVE:	Cooper, Iver P.		
NUMBER OF CLAIMS:	43		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	16 Drawing Figure(s); 16 Drawing Page(s)		
LINE COUNT:	15973		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 76 OF 110 USPATFULL  
ACCESSION NUMBER: 1998:138676 USPATFULL  
TITLE: Method of limiting the survival of genetically engineered microorganisms in their environment  
INVENTOR(S): Molin, Soren, Holte, Denmark  
Givskov, Michael, Copenhagen, Denmark  
Kristensen, Claus Sternberg, Copenhagen N., Denmark  
Bej, Asim K., Birmingham, AL, United States  
Eberl, Leo, Graz, Austria  
PATENT ASSIGNEE(S): GX BioSystems A/S, Copenhagen, Denmark (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5834233		19981110
APPLICATION INFO.:	US 1995-544822		19951018 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-135665, filed on 13 Oct 1993, now abandoned which is a continuation of Ser. No. US 1992-863261, filed on 6 Nov 1992, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Ketter, James		
ASSISTANT EXAMINER:	Brusca, John S.		
LEGAL REPRESENTATIVE:	Cooper, Iver P.		
NUMBER OF CLAIMS:	125		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	43 Drawing Figure(s); 43 Drawing Page(s)		
LINE COUNT:	4488		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 77 OF 110 USPATFULL  
ACCESSION NUMBER: 1998:134627 USPATFULL  
TITLE: Yeast-based delivery vehicles  
INVENTOR(S): Duke, Richard C., Denver, CO, United States  
Franzusoﬀ, Alex, Boulder, CO, United States  
Bellgrau, Donald, Denver, CO, United States  
PATENT ASSIGNEE(S): University Technology Corporation, Boulder, CO, United States (U.S. corporation)

NUMBER	KIND	DATE
--------	------	------

PATENT INFORMATION: US 5830463 19981103  
 APPLICATION INFO.: US 1994-340185 19941115 (8)  
 RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-88322, filed  
 on 7 Jul 1993, now patented, Pat. No. US 5413914  
 DOCUMENT TYPE: Utility  
 PRIMARY EXAMINER: Chambers, Jasmine C.  
 ASSISTANT EXAMINER: Hauda, Karen M.  
 LEGAL REPRESENTATIVE: Sheridan Ross P.C.  
 NUMBER OF CLAIMS: 12  
 EXEMPLARY CLAIM: 1,12  
 NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)  
 LINE COUNT: 1929  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 78 OF 110 USPATFULL

ACCESSION NUMBER: 1998:115424 USPATFULL  
 TITLE: **Vaccines** containing bacteria attenuated by  
**mutations** in two genes of the aromatic amino  
 acid biosynthetic pathway  
 INVENTOR(S): Dougan, Gordon, Beckenham, United Kingdom  
 Chatfield, Steven Neville, Beckenham, United Kingdom  
 Hormaeche, Carlos Estenio, Cambridge, United Kingdom  
 PATENT ASSIGNEE(S): Glaxo Wellcome, Inc., Research Triangle Park, NC,  
 United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5811105		19980922
APPLICATION INFO.:	US 4492978		19950524 (8)
DISCLAIMER DATE:	20180623		
RELATED APPLN. INFO.:	Division of Ser. No. 135436, filed on 13 Oct 1993, now abandoned which is a continuation of Ser. No. 979460, filed on 20 Nov 1992, now abandoned which is a continuation of Ser. No. 857092, filed on 20 Mar 1992, now abandoned which is a continuation of Ser. No. 642138, filed on 15 Jan 1991, now abandoned which is a continuation of Ser. No. 399539, filed on 22 Aug 1989, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 8730037	19871223
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Minnifield, Nita	
LEGAL REPRESENTATIVE:	Nixon & Vanderhye, P.C.	
NUMBER OF CLAIMS:	23	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)	
LINE COUNT:	628	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L3 ANSWER 79 OF 110 USPATFULL

ACCESSION NUMBER: 1998:111773 USPATFULL  
 TITLE: OspE, OspF, and S1 polypeptides in *Borrelia burgdorferi*  
 INVENTOR(S): Flavell, Richard A., Killingworth, CT, United States  
 Fikrig, Erol, Guilford, CT, United States  
 Lam, Tuan T., San Jose, CA, United States  
 Kantor, Fred S., Orange, CT, United States  
 Barthold, Stephen W., Madison, CT, United States  
 PATENT ASSIGNEE(S): Yale University, New Haven, CT, United States (U.S.  
 corporation)

NUMBER	KIND	DATE
--------	------	------

PATENT INFORMATION: US 5807685 19980915  
 APPLICATION INFO.: US 1997-909119 19970811 (8)  
 RELATED APPLN. INFO.: Division of Ser. No. US 1993-118469, filed on 8 Sep 1993, now patented, Pat. No. US 5656451 And a continuation-in-part of Ser. No. US 1993-99757, filed on 30 Jul 1993, now abandoned  
 DOCUMENT TYPE: Utility  
 PRIMARY EXAMINER: Carlson, Karen  
 LEGAL REPRESENTATIVE: Fish & Neave, Haley, Jr., James F., Gunnison, Jane T.  
 NUMBER OF CLAIMS: 11  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 17 Drawing Figure(s); 16 Drawing Page(s)  
 LINE COUNT: 2343  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 80 OF 110 USPATFULL  
 ACCESSION NUMBER: 1998:72257 USPATFULL  
 TITLE: Vaccines containing salmonella bacteria attenuated by mutations in two genes of the aromatic amino acid biosynthetic pathway  
 INVENTOR(S): Dougan, Gordon, Beckenham, United Kingdom  
 Chatfield, Steven Neville, Beckenham, United Kingdom  
 Hormaeche, Carlos Estenio, Cambridge, United Kingdom  
 PATENT ASSIGNEE(S): Glaxo Wellcome, Inc., Research Triangle Park, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5770214		19980623
APPLICATION INFO.:	US 1995-484314		19950607 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-135436, filed on 13 Oct 1993, now abandoned which is a continuation of Ser. No. US 1992-979460, filed on 20 Nov 1992, now abandoned which is a continuation of Ser. No. US 1992-857092, filed on 20 Mar 1992, now abandoned which is a continuation of Ser. No. US 1991-642138, filed on 15 Jan 1991, now abandoned which is a continuation of Ser. No. US 1989-399539, filed on 22 Aug 1989, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1987-30037	19871223
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Minnifield, Nita	
LEGAL REPRESENTATIVE:	Nixon & Vanderhye, P.C.,	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)	
LINE COUNT:	599	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L3 ANSWER 81 OF 110 USPATFULL  
 ACCESSION NUMBER: 97:123350 USPATFULL  
 TITLE: Nucleic acid encoding helicobacter pylori enolase  
 INVENTOR(S): Thompson, Stuart A., Joelton, TN, United States  
 Blaser, Martin J., Nashville, TN, United States  
 PATENT ASSIGNEE(S): Vanderbilt University, Nashville, TN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5703219		19971230
APPLICATION INFO.:	US 1995-446920		19950522 (8)



RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-215928, filed on 21 Mar 1994, now patented, Pat. No. US 5434253, issued on 18 Jul 1995

DOCUMENT TYPE: Utility

PRIMARY EXAMINER: Wax, Robert A.

ASSISTANT EXAMINER: Lau, Kawai

LEGAL REPRESENTATIVE: Needle & Rosenberg, PC

NUMBER OF CLAIMS: 8

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 6 Drawing Figure(s); 6 Drawing Page(s)

LINE COUNT: 1485

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 82 OF 110 USPATFULL

ACCESSION NUMBER: 97:115147 USPATFULL

TITLE: **Salmonella vaccines**

INVENTOR(S): Miller, Samuel I., Brookline, MA, United States  
Mekalanos, John J., Cambridge, MA, United States

PATENT ASSIGNEE(S): The General Hospital Corporation, Boston, MA, United States (U.S. corporation)  
President and Fellows of Harvard College, Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5695983		19971209
APPLICATION INFO.:	US 1994-271354		19940706 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-90526, filed on 9 Jul 1993, now patented, Pat. No. US 5599537 which is a continuation-in-part of Ser. No. US 1990-629602, filed on 18 Dec 1990, now abandoned		

DOCUMENT TYPE: Utility

PRIMARY EXAMINER: Ketter, James

ASSISTANT EXAMINER: Brusca, John S.

LEGAL REPRESENTATIVE: Fish & Richardson P.C.

NUMBER OF CLAIMS: 5

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 25 Drawing Figure(s); 20 Drawing Page(s)

LINE COUNT: 3780

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 83 OF 110 USPATFULL

ACCESSION NUMBER: 97:115125 USPATFULL

TITLE: Hippuricase gene

INVENTOR(S): Chan, Voon Loong, 93 Elmridge Dr., Toronto, Ontario, Canada M6B 1A6  
Hani, Eric Kurt, 37 Greengrove Crescent, Toronto, Ontario, Canada M3A 1H8

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5695960		19971209
APPLICATION INFO.:	US 1995-485216		19950607 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-61696, filed on 14 May 1993, now abandoned		

DOCUMENT TYPE: Utility

PRIMARY EXAMINER: Hendricks, Keith D.

ASSISTANT EXAMINER: Saidha, Tekchand

LEGAL REPRESENTATIVE: Bereskin & Parr

NUMBER OF CLAIMS: 7

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 6 Drawing Figure(s); 6 Drawing Page(s)

LINE COUNT: 1609

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 84 OF 110 USPATFULL  
 ACCESSION NUMBER: 97:78182 USPATFULL  
 TITLE: Invasive microorganisms  
 INVENTOR(S): Falkow, Stanley, Portola Valley, CA, United States  
 Isberg, Ralph, Brookline, MA, United States  
 Miller, Virginia, Van Nuys, CA, United States  
 St. Geme, III, Joseph W., Redwood City, CA, United States  
 Lee, Catherine A., Newton, MA, United States  
 PATENT ASSIGNEE(S): The Board of Trustees of the Leland Stanford Jr.  
 University, Palo Alto, CA, United States (U.S.  
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5662908		19970902
APPLICATION INFO.:	US 1994-216086		19940321 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1992-844470, filed on 2 Mar 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-644826, filed on 23 Jan 1991, now patented, Pat. No. US 5239066 which is a continuation-in-part of Ser. No. US 1990-559904, filed on 30 Jul 1990, now abandoned which is a continuation-in-part of Ser. No. US 1989-340375, filed on 19 Apr 1989, now patented, Pat. No. US 5310654 which is a continuation-in-part of Ser. No. US 1985-761222, filed on 31 Jul 1985, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Mosher, Mary E.		
LEGAL REPRESENTATIVE:	Flehr, Hohbach, Test, Albritton & Herbert, Trecartin, Richard F., Silva, Robin M.		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	2673		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 85 OF 110 USPATFULL  
 ACCESSION NUMBER: 97:70928 USPATFULL  
 TITLE: Recombinant avirulent **salmonella**  
 antifertility **vaccines**  
 INVENTOR(S): Curtiss, III, Roy, St. Louis, MO, United States  
 Tung, Kenneth S. K., Charlottesville, VA, United States  
 PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States  
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5656488		19970812
APPLICATION INFO.:	US 1994-222182		19940401 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1991-791347, filed on 18 Nov 1991, now abandoned which is a continuation-in-part of Ser. No. US 1990-615720, filed on 21 Nov 1990, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Cunningham, Thomas M.		
LEGAL REPRESENTATIVE:	Howell & Haferkamp, L.C.		
NUMBER OF CLAIMS:	50		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	23 Drawing Figure(s); 20 Drawing Page(s)		
LINE COUNT:	3112		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 86 OF 110 USPATFULL  
 ACCESSION NUMBER: 97:70893 USPATFULL  
 TITLE: OspE, OspF, and S1 polypeptides in borrelia burgdorferi  
 INVENTOR(S): Flavell, Richard A., Killingworth, CT, United States  
 Fikrig, Erol, Guilford, CT, United States  
 Lam, Tuan T., San Jose, CA, United States  
 Kantor, Fred S., Orange, CT, United States  
 Barthold, Stephen W., Madison, CT, United States  
 PATENT ASSIGNEE(S): Yale University, New Haven, CT, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5656451		19970812
APPLICATION INFO.:	US 1993-118469		19930908 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-99757, filed on 30 Jul 1993, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Carlson, K. Cochrane		
LEGAL REPRESENTATIVE:	Fish & Neave, Haley, Jr. Esq., James F., Gunnison, Esq., Jane T.		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 16 Drawing Page(s)		
LINE COUNT:	2447		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 87 OF 110 USPATFULL  
 ACCESSION NUMBER: 97:59078 USPATFULL  
 TITLE: Peptide and protein fusions to thioredoxin, thioredoxin-like molecules, and modified thioredoxin-like molecules  
 INVENTOR(S): McCoy, John, Reading, MA, United States  
 DiBlasio-Smith, Elizabeth, Tyngsboro, MA, United States  
 Grant, Kathleen, Salem, MA, United States  
 LaVallie, Edward R., Tewksbury, MA, United States  
 PATENT ASSIGNEE(S): Genetics Institute, Inc., Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5646016		19970708
APPLICATION INFO.:	US 1993-165301		19931210 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1992-921848, filed on 28 Jul 1992, now patented, Pat. No. US 5292646, issued on 8 Mar 1994 which is a continuation-in-part of Ser. No. US 1991-745382, filed on 14 Aug 1991, now patented, Pat. No. US 5270181, issued on 14 Dec 1993 which is a continuation-in-part of Ser. No. US 1991-652531, filed on 6 Feb 1991, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Hendricks, Keith D.		
ASSISTANT EXAMINER:	Bugaisky, G. E.		
LEGAL REPRESENTATIVE:	Meinert, M. C.		
NUMBER OF CLAIMS:	41		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 13 Drawing Page(s)		
LINE COUNT:	2397		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 88 OF 110 USPATFULL  
 ACCESSION NUMBER: 97:47098 USPATFULL  
 TITLE: Method of detecting ligand interactions

INVENTOR(S): McCoy, John M., Reading, MA, United States  
Lu, Zhijian, Arlington, MA, United States  
PATENT ASSIGNEE(S): Genetics Institute, Inc., Cambridge, MA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5635182		19970603
APPLICATION INFO.:	US 1994-260582		19940616 (8)
DISCLAIMER DATE:	20101214		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Bugalsky, Gabriele E.		
LEGAL REPRESENTATIVE:	Meinert, M. C.		
NUMBER OF CLAIMS:	28		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	1935		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 89 OF 110 USPATFULL  
ACCESSION NUMBER: 97:1542 USPATFULL  
TITLE: Expression of specific immunogens using viral antigens  
INVENTOR(S): Hung, Paul P., Bryn Mawr, PA, United States  
Lee, Shaw-Guang L., Villanova, PA, United States  
Kalyan, Narendra K., Wayne, PA, United States  
PATENT ASSIGNEE(S): American Home Products Corporation, Madison, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5591823		19970107
APPLICATION INFO.:	US 1993-169813		19931217 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1991-805105, filed on 11 Dec 1991, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Smith, Lynette F.		
LEGAL REPRESENTATIVE:	Jackson, Richard K.		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	1122		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 90 OF 110 USPATFULL  
ACCESSION NUMBER: 96:116113 USPATFULL  
TITLE: **Flagella-less borrelia**  
INVENTOR(S): Barbour, Alan G., San Antonio, TX, United States  
Bundoc, Virgilio G., Newbury Park, CA, United States  
Sadziene, Adriadna, San Antonio, TX, United States  
PATENT ASSIGNEE(S): Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5585102		19961217
APPLICATION INFO.:	US 1993-124290		19930920 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1991-641143, filed on 11 Jan 1991		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Sidberry, Hazel F.		
LEGAL REPRESENTATIVE:	Arnold, White & Durkee		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1		



NUMBER OF DRAWINGS: 17 Drawing Figure(s); 11 Drawing Page(s)  
LINE COUNT: 1434

L3 ANSWER 91 OF 110 USPATFULL  
ACCESSION NUMBER: 96:101466 USPATFULL  
TITLE: Directed evolution of novel binding proteins  
INVENTOR(S): Ladner, Robert C., Ijamsville, MD, United States  
Guterman, Sonia K., Belmont, MA, United States  
Roberts, Bruce L., Milford, MA, United States  
Markland, William, Milford, MA, United States  
Ley, Arthur C., Newton, MA, United States  
Kent, Rachel B., Boxborough, MA, United States  
PATENT ASSIGNEE(S): Protein Engineering Corporation, Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5571698		19961105
APPLICATION INFO.:	US 1993-57667		19930618 (8)
DISCLAIMER DATE:	20100629		
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1991-664989, filed on 1 Mar 1991, now patented, Pat. No. US 5223409 which is a continuation-in-part of Ser. No. US 1990-487063, filed on 2 Mar 1990, now abandoned which is a continuation-in-part of Ser. No. US 1988-240160, filed on 2 Sep 1988, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Ulm, John		
LEGAL REPRESENTATIVE:	Cooper, Iver P.		
NUMBER OF CLAIMS:	83		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	16 Drawing Figure(s); 16 Drawing Page(s)		
LINE COUNT:	15323		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 92 OF 110 USPATFULL  
ACCESSION NUMBER: 96:75121 USPATFULL  
TITLE: Recombinant hybrid porin epitopes  
INVENTOR(S): Goldstein, Neil I., West Orange, NJ, United States  
Tackney, Charles T., Brooklyn, NY, United States  
PATENT ASSIGNEE(S): Imclone Systems Incorporated, New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5547670		19960820
APPLICATION INFO.:	US 1993-124369		19930920 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1991-669528, filed on 14 Mar 1991, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Nucker, Christine M.		
ASSISTANT EXAMINER:	Scheiner, Laurie		
LEGAL REPRESENTATIVE:	Feit, Irving N., Gallagher, Thomas C.		
NUMBER OF CLAIMS:	4		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	985		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 93 OF 110 USPATFULL  
ACCESSION NUMBER: 96:45945 USPATFULL  
TITLE: Transformed cell lines producing human monoclonal antibodies specific for Pseudomonas aeruginosa serotypes

INVENTOR(S): Fukuda, Tamotsu, Mobara, Japan  
 Ono, Yasushi, Shiki, Japan  
 Shigeta, Shiro, Fukushima, Japan  
 Kuriowa, Yasuyuki, Mobara, Japan  
 Ooka, Hisayoshi, Fukushima, Japan  
 PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5521085		19960528
APPLICATION INFO.:	US 1993-41244		19930401 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1989-431097, filed on 3 Nov 1989, now abandoned Ser. No. Ser. No. US 1990-602235, filed on 8 Nov 1990, now abandoned And Ser. No. US 1992-879118, filed on 5 May 1992, now abandoned which is a continuation of Ser. No. US 1988-251217, filed on 8 Aug 1988, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1986-296594	19861215
	WO 1987-JP976	19871214
	JP 1988-281460	19881109
	JP 1988-281461	19881109
	JP 1989-66326	19890320
	JP 1989-66327	19890320
	JP 1989-66328	19890320
	JP 1989-66329	19890320
	JP 1989-116048	19890511
	WO 1990-JP367	19900319
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Lacey, David L.	
ASSISTANT EXAMINER:	Loring, Susan A.	
LEGAL REPRESENTATIVE:	Nixon & Vanderhye	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 4 Drawing Page(s)	
LINE COUNT:	3963	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L3 ANSWER 94 OF 110 USPATFULL  
 ACCESSION NUMBER: 95:103251 USPATFULL  
 TITLE: Avirulent microbes and uses therefor  
 INVENTOR(S): Curtiss, III, Roy, St. Louis, MO, United States  
 PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5468485		19951121
APPLICATION INFO.:	US 1993-20259		19930218 (8)
DISCLAIMER DATE:	20110315		
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1989-332285, filed on 31 Mar 1989, now abandoned which is a continuation-in-part of Ser. No. US 1988-200934, filed on 1 Jun 1988, now abandoned which is a continuation-in-part of Ser. No. US 1987-58360, filed on 4 Jun 1987, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Sidberry, Hazel F.		
LEGAL REPRESENTATIVE:	Rogers, Howell & Haferkamp		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 8 Drawing Page(s)		

LINE COUNT: 2597  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 95 OF 110 USPATFULL  
ACCESSION NUMBER: 95:66995 USPATFULL  
TITLE: **Flagella-less borrelia**  
INVENTOR(S): Barbour, Alan G., San Antonio, TX, United States  
Bundoc, Virgilio, San Antonio, TX, United States  
PATENT ASSIGNEE(S): University of Texas System, Austin, TX, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5436000		19950725
APPLICATION INFO.:	US 1991-641143		19910111 (7)
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Sidberry, Hazel F.		
LEGAL REPRESENTATIVE:	Arnold, White & Durkee		
NUMBER OF CLAIMS:	1		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	23 Drawing Figure(s); 14 Drawing Page(s)		
LINE COUNT:	1300		

L3 ANSWER 96 OF 110 USPATFULL  
ACCESSION NUMBER: 95:29292 USPATFULL  
TITLE: Viruses expressing chimeric binding proteins  
INVENTOR(S): Ladner, Robert C., Ijamsville, MD, United States  
Guterman, Sonia K., Belmont, MA, United States  
Roberts, Bruce L., Milford, MA, United States  
Markland, William, Milford, MA, United States  
Ley, Arthur C., Newton, MA, United States  
Kent, Rachel B., Boxborough, MA, United States  
PATENT ASSIGNEE(S): Protein Engineering Corporation, Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5403484		19950404
APPLICATION INFO.:	US 1993-9319		19930126 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1991-664989, filed on 1 Mar 1991, now patented, Pat. No. US 5223409 which is a continuation-in-part of Ser. No. US 1990-487063, filed on 2 Mar 1990, now abandoned which is a continuation-in-part of Ser. No. US 1988-240160, filed on 2 Sep 1988, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1989-3731	19890901
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Hill, Jr., Robert J.	
ASSISTANT EXAMINER:	Ulm, John D.	
LEGAL REPRESENTATIVE:	Cooper, Iver P.	
NUMBER OF CLAIMS:	49	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	16 Drawing Figure(s); 16 Drawing Page(s)	
LINE COUNT:	14368	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 97 OF 110 USPATFULL  
ACCESSION NUMBER: 95:13604 USPATFULL  
TITLE: Avirulent microbes and uses therefor  
INVENTOR(S): Gurtiss, III, Roy, St. Louis, MO, United States  
PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States



(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5389368		19950214
APPLICATION INFO.:	US 1992-965607		19921022 (7)
DISCLAIMER DATE:	20110315		
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1988-200934, filed on 1 Jun 1988, now abandoned which is a continuation-in-part of Ser. No. US 1987-58360, filed on 4 Jun 1987, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Low, Christopher S. F.		
LEGAL REPRESENTATIVE:	Rogers, Howell & Haferkamp		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	2106		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 98 OF 110 USPATFULL  
ACCESSION NUMBER: 95:11759 USPATFULL  
TITLE: Avirulent microbes and uses therefor:  
**Salmonella typhi**  
INVENTOR(S): Curtiss, III, Roy, St. Louis, MO, United States  
Kelly, Sandra M., St. Louis, MO, United States  
PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5387744		19950207
APPLICATION INFO.:	US 1993-88394		19930707 (8)
DISCLAIMER DATE:	20110315		
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1992-975892, filed on 13 Nov 1992, now abandoned which is a continuation of Ser. No. US 1990-612001, filed on 9 Nov 1990, now abandoned which is a continuation-in-part of Ser. No. US 1988-200934, filed on 1 Jun 1988, now abandoned which is a continuation-in-part of Ser. No. US 1987-58360, filed on 4 Jun 1987, now abandoned, said Ser. No. US -612001 which is a continuation-in-part of Ser. No. US 1988-251304, filed on 3 Oct 1988, now abandoned which is a continuation-in-part of Ser. No. US 1987-106072, filed on 7 Oct 1987, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Low, Christopher S. F.		
LEGAL REPRESENTATIVE:	Rogers, Howell & Haferkamp		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)		
LINE COUNT:	2718		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 99 OF 110 USPATFULL  
ACCESSION NUMBER: 94:90955 USPATFULL  
TITLE: Membrane expression of heterologous genes  
INVENTOR(S): Niesel, David W., League City, TX, United States  
Moncrief, J. Scott, Galveston, TX, United States  
Phillips, Linda H., Galveston, TX, United States  
PATENT ASSIGNEE(S): Board of Regents, The University of Texas, Austin, TX,  
United States (U.S. corporation)

NUMBER	KIND	DATE
--------	------	------

PATENT INFORMATION: US 5356797 19941018  
 APPLICATION INFO.: US 1991-792525 19911115 (7)  
 DOCUMENT TYPE: Utility  
 PRIMARY EXAMINER: Schwartz, Richard A.  
 ASSISTANT EXAMINER: Guzo, David  
 LEGAL REPRESENTATIVE: Arnold, White & Durkee  
 NUMBER OF CLAIMS: 24  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 12 Drawing Figure(s); 11 Drawing Page(s)  
 LINE COUNT: 1390  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 100 OF 110 USPATFULL  
 ACCESSION NUMBER: 94:84349 USPATFULL  
 TITLE: DNAs encoding Treponema pallidum antigens  
 INVENTOR(S): Norgard, Michael V., Plano, TX, United States  
 PATENT ASSIGNEE(S): Board of Regents, The University of Texas System,  
 Austin, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5350842		19940927
APPLICATION INFO.:	US 1992-940245		19920831 (7)
DISCLAIMER DATE:	20060919		
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1986-913724, filed on 30 Sep 1986, now patented, Pat. No. US 4868118 And a continuation-in-part of Ser. No. US 1988-235351, filed on 23 Aug 1988, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Schwartz, Richard A.		
ASSISTANT EXAMINER:	LeGuyader, J.		
LEGAL REPRESENTATIVE:	Arnold, White & Durkee		
NUMBER OF CLAIMS:	15		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	1871		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 101 OF 110 USPATFULL  
 ACCESSION NUMBER: 94:82162 USPATFULL  
 TITLE: Expression of proteins on bacterial surface  
 INVENTOR(S): Georgiou, George, 11501 Juniper Ridge Dr., Austin, TX, United States 78759  
 Francisco, Joseph A., Austin, TX, United States  
 Earhart, Charles F., Austin, TX, United States  
 PATENT ASSIGNEE(S): Georgiou, George, Austin, TX, United States (U.S. individual)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5348867		19940920
APPLICATION INFO.:	US 1991-794731		19911115 (7)
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Hill, Jr., Robert J.		
ASSISTANT EXAMINER:	Allen, Marianne Porta		
LEGAL REPRESENTATIVE:	Arnold, White & Durkee		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1,2		
NUMBER OF DRAWINGS:	11 Drawing Figure(s); 10 Drawing Page(s)		
LINE COUNT:	1400		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 102 OF 110 USPATFULL

ACCESSION NUMBER: 94:71123 USPATFULL  
TITLE: Yersinia INV nucleic acids  
INVENTOR(S): Isberg, Ralph R., Brookline, MA, United States  
Miller, Virginia, Los Angeles, CA, United States  
Falkow, Stanley, Portola Valley, CA, United States  
PATENT ASSIGNEE(S): The Board of Trustees of Leland Stanford Jr.  
University, Stanford, CA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5338842		19940816
APPLICATION INFO.:	US 1992-890317		19920522 (7)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1990-559904, filed on 30 Jul 1990, now abandoned which is a continuation-in-part of Ser. No. US 1989-340375, filed on 19 Apr 1989 which is a continuation-in-part of Ser. No. US 1985-761222, filed on 31 Jul 1985, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1990-US2131	19900418
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Schwartz, Richard A.	
ASSISTANT EXAMINER:	Mosher, Mary E.	
LEGAL REPRESENTATIVE:	Flehr, Hohbach, Test, Albritton & Herbert	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1821	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L3 ANSWER 103 OF 110 USPATFULL  
ACCESSION NUMBER: 94:35369 USPATFULL  
TITLE: Oligosaccharide conjugate vaccines  
INVENTOR(S): Porro, Massimo, Siena, Italy  
PATENT ASSIGNEE(S): American Cyanamid Company, Wayne, NJ, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5306492		19940426
APPLICATION INFO.:	US 1992-921678		19920730 (7)
RELATED APPLN. INFO.:	Division of Ser. No. US 1990-590649, filed on 28 Sep 1990, now patented, Pat. No. US 5153312		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Kim, Kay K.		
LEGAL REPRESENTATIVE:	Dow, Kenneth J.		
NUMBER OF CLAIMS:	2		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 4 Drawing Page(s)		
LINE COUNT:	1422		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 104 OF 110 USPATFULL  
ACCESSION NUMBER: 94:22076 USPATFULL  
TITLE: Avirulent microbes and uses therefor:  
**salmonella typhi**  
INVENTOR(S): Curtiss, III, Roy, St. Louis, MO, United States  
PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5294441		19940315

APPLICATION INFO.: US 1991-785748 19911107 (7)  
 RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1990-612001, filed on 9 Nov 1990, now abandoned which is a continuation-in-part of Ser. No. US 1988-200934, filed on 1 Jun 1988, now abandoned which is a continuation-in-part of Ser. No. US 1987-58360, filed on 4 Jun 1987, now abandoned, said Ser. No. 612001 which is a continuation-in-part of Ser. No. US 1988-251304, filed on 3 Oct 1988, now abandoned which is a continuation-in-part of Ser. No. US 1987-106072, filed on 7 Oct 1987, now abandoned

DOCUMENT TYPE: Utility  
 PRIMARY EXAMINER: Low, Christopher S. F.  
 LEGAL REPRESENTATIVE: Rogers, Howell & Haferkamp  
 NUMBER OF CLAIMS: 12  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 6 Drawing Figure(s); 6 Drawing Page(s)  
 LINE COUNT: 3370  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 105 OF 110 USPATFULL  
 ACCESSION NUMBER: 94:20081 USPATFULL  
 TITLE: Peptide and protein fusions to thioredoxin and thioredoxin-like molecules  
 INVENTOR(S): McCoy, John, Reading, MA, United States  
 LaVallie, Edward R., Tewksbury, MA, United States  
 PATENT ASSIGNEE(S): Genetics Institute, Inc., Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5292646		19940308
APPLICATION INFO.:	US 1992-921848		19920728 (7)
DISCLAIMER DATE:	20101214		
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1991-745382, filed on 14 Aug 1991 which is a continuation-in-part of Ser. No. US 1991-652531, filed on 6 Feb 1991, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Bugaisky, G. E.		
LEGAL REPRESENTATIVE:	Meinert, Maureen C., DesRosier, Thomas J., Eisen, Bruce M.		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	21		
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 12 Drawing Page(s)		
LINE COUNT:	1565		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L3 ANSWER 106 OF 110 USPATFULL  
 ACCESSION NUMBER: 93:78691 USPATFULL  
 TITLE: Virulence associated proteins in Borrelia burgdorferi (BB)  
 INVENTOR(S): Norris, Steven J., Houston, TX, United States  
 Barbour, Alan G., San Antonio, TX, United States  
 PATENT ASSIGNEE(S): Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5246844		19930921
APPLICATION INFO.:	US 1991-781355		19911022 (7)
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Nucker, Christine M.		
ASSISTANT EXAMINER:	Dubrule, Chris		

LEGAL REPRESENTATIVE: Arnold, White & Durkee  
NUMBER OF CLAIMS: 22  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 14 Drawing Page(s)  
LINE COUNT: 1705  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 107 OF 110 USPATFULL  
ACCESSION NUMBER: 93:69992 USPATFULL  
TITLE: Yersinia ail nucleic acids  
INVENTOR(S): St. Geme, III: Joseph W., Redwood City, CA, United States  
Falkow, Stanley, Portola Valley, CA, United States  
Isberg, Ralph, Brookline, MA, United States  
Miller, Virginia, Van Nuys, CA, United States  
PATENT ASSIGNEE(S): The Board of Trustees of Leland Stanford Jr.  
University, Stanford, CA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5239066		19930824
APPLICATION INFO.:	US 1991-644826		19910123 (7)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1990-559904, filed on 30 Jul 1990, now abandoned which is a continuation-in-part of Ser. No. US 1989-340375, filed on 19 Apr 1989 which is a continuation-in-part of Ser. No. US 1985-761222, filed on 31 Jul 1985, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Schwartz, Richard A.		
ASSISTANT EXAMINER:	Mosher, Mary E.		
LEGAL REPRESENTATIVE:	Flehr, Hohbach, Test, Albritton & Herbert		
NUMBER OF CLAIMS:	15		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2096		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 108 OF 110 USPATFULL  
ACCESSION NUMBER: 93:52487 USPATFULL  
TITLE: Directed evolution of novel binding proteins  
INVENTOR(S): Ladner, Robert C., Ijamsville, MD, United States  
Guterman, Sonia K., Belmont, MA, United States  
Roberts, Bruce L., Milford, MA, United States  
Markland, William, Milford, MA, United States  
Ley, Arthur C., Newton, MA, United States  
Kent, Rachel B., Boxborough, MA, United States  
PATENT ASSIGNEE(S): Protein Engineering Corp., Cambridge, MA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5223409		19930629
APPLICATION INFO.:	US 1991-664989		19910301 (7)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1990-487063, filed on 2 Mar 1990, now abandoned And a continuation-in-part of Ser. No. US 1988-240160, filed on 2 Sep 1988, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Hill, Jr., Robert J.		
ASSISTANT EXAMINER:	Ulm, John D.		
LEGAL REPRESENTATIVE:	Cooper, Iver P.		
NUMBER OF CLAIMS:	66		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	16 Drawing Figure(s); 16 Drawing Page(s)		

LINE COUNT: 15410  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 109 OF 110 USPATFULL  
ACCESSION NUMBER: 92:82892 USPATFULL  
TITLE: Oligosaccharide conjugate vaccines  
INVENTOR(S): Porro, Massimo, Siena, Italy  
PATENT ASSIGNEE(S): American Cyanamid Company, Wayne, NJ, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5153312		19921006
APPLICATION INFO.:	US 1990-590649		19900928 (7)
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Nucker, Christine M.		
ASSISTANT EXAMINER:	Kim, Kay		
LEGAL REPRESENTATIVE:	Dow, Kenneth J.		
NUMBER OF CLAIMS:	27		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 4 Drawing Page(s)		
LINE COUNT:	1491		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 110 OF 110 USPATFULL  
ACCESSION NUMBER: 72:29908 USPATFULL  
TITLE: PROCESS FOR OBTAINING AND PRESERVING STABLE BACTERIAL  
VARIANTS  
INVENTOR(S): Thuillier, Yvonne, Paris, France  
PATENT ASSIGNEE(S): Albert Rolland S.A., Paris, France

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 3669846		19720613
APPLICATION INFO.:	US 1970-21765		19700323 (5)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1969-15672	19690325
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Monacell, A. Louis	
ASSISTANT EXAMINER:	Hensley, Max D.	
LEGAL REPRESENTATIVE:	Bacon & Thomas	
NUMBER OF CLAIMS:	10	
NUMBER OF DRAWINGS:	20 Drawing Figure(s); 11 Drawing Page(s)	
LINE COUNT:	914	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

7

AN 1988:417215 BIOSIS  
DN BA86:79827  
TI INTACT MOTILITY AS A **SALMONELLA-TYPHI** INVASION-RELATED  
FACTOR.  
AU LIU S-L; EZAKI T; MIURA H; MATSUI K; YABUUCHI E  
CS DEP. MICROBIOLOGY, GIFU UNIV. SCH. MED., 40 TSUKASA-MACHI, GIFU 500,  
JAPAN.  
SO INFECT IMMUN, (1988) 56 (8), 1967-1973.  
CODEN: INFIBR. ISSN: 0019-9567.  
FS BA; OLD  
LA English  
AB Invasiveness of **Salmonella typhi** was investigated. At first, we introduced Tn5 into the chromosome of a wild-type *S. typhi* strain, GIFU 10007, and screened the independent Tn5 insertion mutants for noninvasive (Inv-) strains. During the first half of this work, we obtained 4 Inv- strains from 1,338 independent Tn5 mutants. The four were either **nonflagellate** (Fla-), nonmotile (Mot-), or nonchemotactic (Che-). We then isolated more Fla-, Mot-, or Che- mutants and examined the invasiveness of these mutants. Sixty-three spontaneous or Tn5 insertion motility mutants, i.e., Fla-, Mot-, or Che-, were independently isolated from the wild-type strain GIFU 10007; all of them were noninvasive. Motile revertants isolated from some of these mutants showed the same invasiveness as the parent strain. P22-mediated transductional crosses were carried out between some of the motility mutants (as the recipients) and the Fla- reference strains of *S. typhimurium* with known deletion sites on the genome (as the donors). The mutational sites of the *S. typhi* mutants were assigned almost evenly to the three flagellar gene regions (regions I, II, and III) of *S. typhimurium*. The invasiveness of the motile recombinants obtained from the transduction assays was examined. The restoration of intact motility resulted in the restoration of invasiveness. Thus, we conclude that intact motility is an invasion-related factor of *S. typhi*. The relationship of Vi antigen to the invasiveness of *S. typhi* was also studied. Vi-negative mutants with intact motility remained invasive, whereas all 63 Inv- spontaneous or Tn5 mutants were Vi positive. Therefore, Vi antigen was not related to the invasiveness of *S. typhi*.